

Background



The Northern Sacramento Valley (NSV) Regional Water Management Group (RWMG) has over five years of effective integrated regional planning and stakeholder involvement, documented below. This section provides context leading up to the detailed work plan set forth in this application, and addresses the following topics:

- The Regional Water Management Group
- The Region
- Previous IRWM Planning
- Previous Stakeholder Identification and Involvement
- Processes Used to Identify the Region's Disadvantaged Communities and How DAC's Have Been Engaged
- Processes Used to Identify Water-Related Objectives and Conflicts
- Process Used to Determine Criteria for Developing Regional Priorities
- Ongoing Data Collection, Analysis, and Management
- How Integrated Resource Management Strategies will be Employed
- How the IRWMP will be Implemented and What Impacts and Benefits are Anticipated
- Existing IRWMP Relative to Current IRWM Plan Standards

Five years of collaborative effort has built a solid foundation for effective regional planning and stakeholder involvement. The group's continuing efforts have increased the understanding of their common resources, recognizing that water and other natural resources do not abide by political boundaries and that land use planning activities are connected by natural resources.



The Regional Water Management Group (RWMG)

The NSV RWMG planning area is within the Sacramento River Hydrologic Area and encompasses the six Counties of Butte, Colusa, Glenn, Shasta, Sutter, and Tehama. Although these counties have worked together on various water and resource management issues for many years, the catalyst for a more formal relationship was funding for a water quality project in 2005 provided by the California Bay-Delta Authority Drinking Water Program and administered through the Glenn County Agriculture Department.

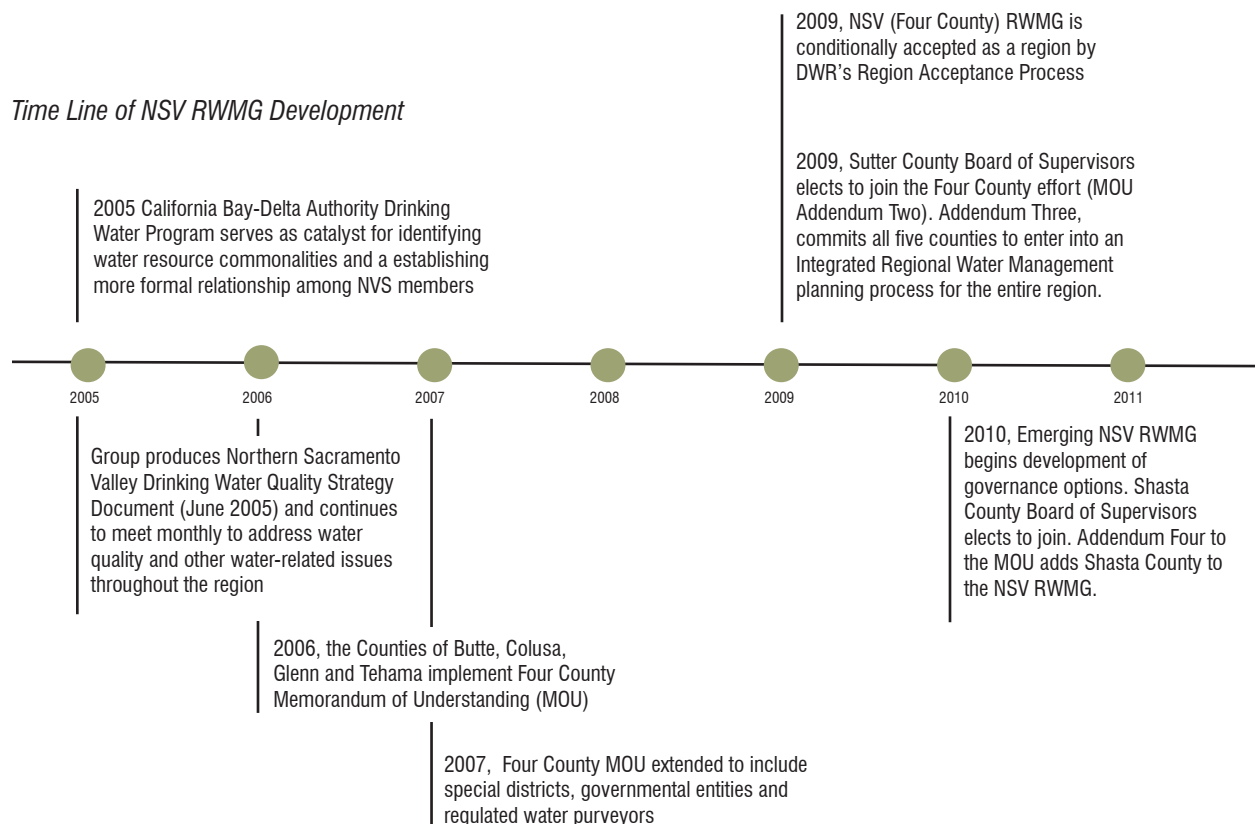
The 2005 project primarily addressed the drinking water conditions within the region and provided for the development of drinking water quality management strategies on a regional basis. The project also highlighted the commonalities of the participating counties on water and resource related activities as well as the efficiencies and benefits associated with working together on a regional basis.

The group began meeting regularly to produce the Northern Sacramento Valley Drinking Water Quality Strategy Document in June 2005 and has continued to meet on a monthly basis to address water quality and many other water-related issues throughout the region. The group's continuing collaborative effort has increased the understanding of their common resources, recognizing that water and other natural resources do not abide by political boundaries and that land use planning activities are connected by natural resources.

Several formal actions highlight the origins of the NSV RWMG, as described in the following sections:

- Creation of the Four County and Multi-Party MOUs
- Addition of Sutter County
- Addition of the Redding Groundwater Basin, Shasta County

Time Line of NSV RWMG Development



Four County and Multi-Party MOUs

Early in 2006, the Counties of Butte, Colusa, Glenn and Tehama formalized their long-standing relationship on water resource planning issues with the approval of the Four County Memorandum of Understanding (MOU) by all four County Boards of Supervisors. A multi-party MOU was signed in May of 2007 as an extension of the Four County MOU to include special districts, governmental entities and regulated water purveyors. The multi-party MOU was initially intended to facilitate coordination, collaboration and communication on management activities associated with the “Lower Tuscan” and “Tehama” groundwater aquifers. The initial Four County MOU was amended by Addendum One, which consists of a Statement of Principles Regarding Water Related Programs and Projects.

Addition of Sutter County

In February 2009, the Sutter County Board of Supervisors elected to join the Four County effort of regional planning activities. Subsequently, all five Boards have supported Addendum Two, which adds Sutter County and Addendum Three, which commits all five counties to enter into an Integrated Regional Water Management planning process for the entire region.

Addition of Redding Groundwater Basin, Shasta County

In early 2010, as the emerging NSV RWMG began meeting to discuss governance options, Shasta County expressed interest in joining the effort. In the summer of 2010, all five existing Boards of Supervisors and the Shasta County Board approved Addendum Four to the MOU adding Shasta County to the Northern Sacramento Valley RWMG. Subsequent to that action, the Four County planning group became the Northern Sacramento Valley Integrated Regional Water Management Planning Group (NSV RWMG).

In 1997 stakeholders completed the Shasta County Water Resources Master Plan Phase 1 Report, which considered water supply and demand through 2030. Water supplies in watersheds

Memorandum of Understanding (MOU)

Multi-party MOU intended to facilitate coordination, collaboration and communication on management activities associated with the “Lower Tuscan” and “Tehama” groundwater aquifers.

Addendum One: *Expands MOU to incorporate principles regarding water related programs and projects.*

Addendum Two: *Adds Sutter County*

Addendum Three: *Commits all five counties to enter into an Integrated Regional Water Management planning process for the entire region.*

Addendum Four: *Adds Redding Groundwater Basin, Shasta County*

and basins outside of the Redding Groundwater Basin were found to be adequate, while the large population concentration on the I-5 corridor in the Redding Groundwater Basin showed vulnerability to shortfalls with increased demand as populations increased.

Shasta County adopted an AB 3030 plan in 1998. At the same time the Redding Area Water Council (RAWC) was established by memorandum of understanding with water purveyors and heavy industry overlying the Redding Groundwater Basin. An integrated surface-groundwater model was developed. In 2006, with the support of the RAWC, Shasta County joined the Northern California Water Association’s Sacramento Valley IRWM effort for the area overlying the Redding Groundwater Basin.

The Region

The NSV RWMG planning area encompasses the jurisdictional boundaries of the Counties of Butte, Colusa, Glenn, Sutter, and Tehama. The region also includes the portion of Shasta County within the Redding Groundwater Basin (i.e. the area under the purview of the Redding Area Water Council). The region boundary is shown in Figure 1.

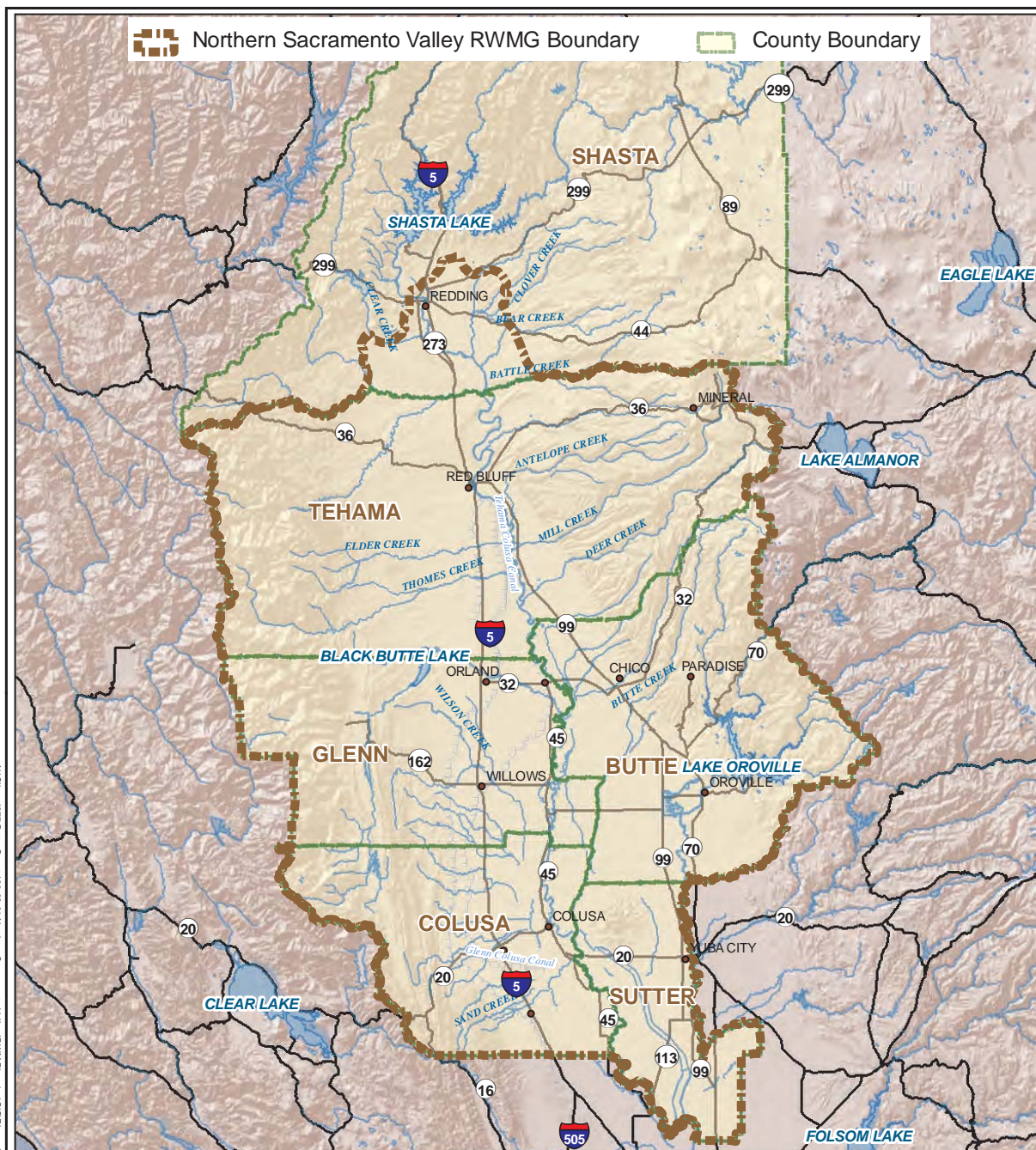


FIGURE 1

**Prop 84 IRWM Planning
Grant Application**

**NORTHERN SACRAMENTO VALLEY RWMG
REGION BOUNDARY MAP**



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The region shares common water resources, including shared groundwater basins, as well as tributaries to the Sacramento River, which traverse county boundaries.

The regional boundary of the planning area was selected in order to maximize the opportunity to integrate water management and ecosystem activities due to the interconnectivity of the resources and the rural nature of the participating counties.

Regions that overlap or abut the NSV RWMG boundary include:

- Upper Feather River IRWMP
- Sacramento Valley IRWMP
- Westside Regional Water Management Group
- Upper Pit River
- Upper Sacramento River-McCloud

Previous IRWM Planning

The Sacramento Valley IRWMP was developed by the Northern California Water Association (NCWA) on behalf of the Northern California Joint Exercise of Powers and adopted in 2006. It covers all of the Sacramento Valley in concept, provides some specifics in a large portion of the Sacramento Valley adjacent to the Sacramento River, and refers to the related efforts of the Yolo County IRWMP, the Cosumnes, American, and Bear, Yuba River IRWMP, Regional Water Authority American River Basin IRWMP, and other efforts as being “nested” within the Sacramento Valley IRWMP. It overlaps a large part of the NSV region but is not compliant with the current IRWM guidelines published by DWR in 2010. The new guidelines render the Sacramento Valley IRWMP deficient in drought preparedness, water efficiency and reuse, climate change response actions, environmental stewardship, integrated flood management, groundwater and surface water quality protection measures, Tribal water needs and natural resources improvement, and equitable distribution of benefits (i.e.

addressing disadvantaged communities). The Sacramento Valley IRWMP focuses predominantly on agricultural water supply and conveyance issues and does not provide adequate attention to other critical regional topics such as drinking water, groundwater, recycled water, wastewater, and recreation.

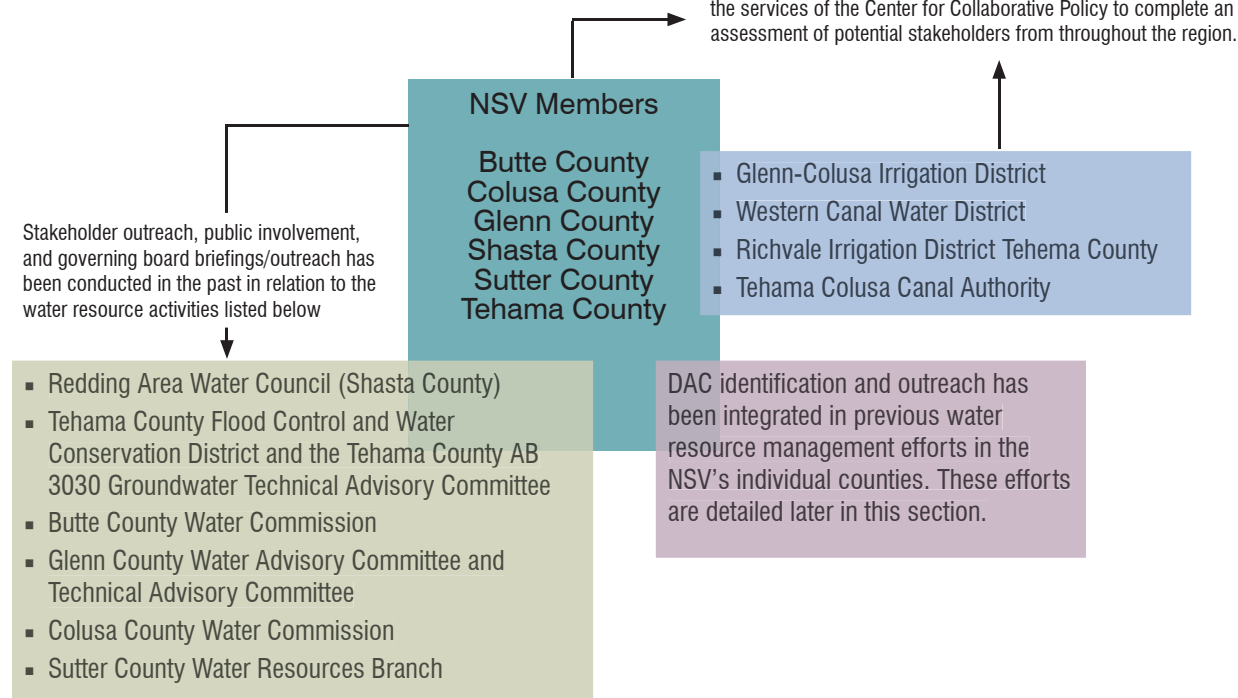
Previous Stakeholder Identification and Involvement

Coordination and collaboration among stakeholders within the planning area has been demonstrated by the approval of the existing NSV RWMG MOU and the associated Addendums One, Two, Three, and Four. In addition, the NSV RWMG has worked in cooperation with three major water districts within the region, Glenn-Colusa Irrigation District, Tehama Colusa Canal Authority, Western Canal Water District and Richvale Irrigation District in a process to identify key stakeholders within the region whose involvement is essential for the success of the planning process and integrated resource management. This organizing group, known internally as the Regional Partners, worked in 2007 through 2009 with DWR using the services of the Center for Collaborative Policy (CCP) to complete an assessment of potential stakeholders from throughout the region. The goal of the work with the CCP was to identify areas of concern to the identified stakeholders and to seek to identify ways to work in a cooperative and collaborative manner.

The Water Planning and Management Assessment completed by the Regional Partners, working with the CCP, provides a “snapshot of the range of stated stakeholder perspectives” in the region. It is also instrumental in pointing out many areas needing improvement in the region such as better communication and appropriate representation. This existing head start can be leveraged in future outreach and planning work.



Summary of Previous Stakeholder Identification and Involvement



The 2008 report produced by the CCP, NSV RWMG Water Planning and Management Assessment, is attached to this Work Plan as Appendix 1. This document provided a “snapshot of the range of stated stakeholder perspectives”. Funding for continuation of the facilitated stakeholder involvement process was frozen before it was completed; however, this document serves to illustrate the need for increased stakeholder involvement and communication that will enhance ownership of and buy-in for the NSV IRWM planning process. While the assessment did not meet all expectations for resolving existing conflicts, it did point out many areas needing improvement in the region such as better communication and appropriate representation. After being primed with the CCP assessment, stakeholders that attended the individual county meetings conducted by West Yost Associates in early 2010 (discussed in the Work Plan section of this application) had greater awareness of the various interests in the region and were amenable to cooperation in an integrated regional effort. Since the meetings in early 2010, region stakeholders have been eager to engage in the upcoming NSV IRWMP effort.

Various water resource stakeholder groups engaged in past public planning efforts, serve to advise the various Boards of Supervisors on water-related activities. These groups include:

- Redding Area Water Council (Shasta County)
- Tehama County Flood Control and Water Conservation District, and the Tehama County AB 3030 Groundwater Technical Advisory Committee
- Butte County Water Commission
- Glenn County Water Advisory Committee and Technical Advisory Committee
- Colusa County Water Commission
- Sutter County Water Resources Branch

Each county that is part of the NSV RWMG also has public entities and processes subject to the Brown Act, which have traditionally been used to involve the public in water resource management activities. Through the evolution of the IRWM planning process, the NSV RWMG intends to enhance this public involvement through additional coordination and integration among the previously listed entities and



through additional outreach and identification of additional key stakeholders, including disadvantaged communities (DAC) and Tribal interests. The NSV RWMG realizes the value of bringing other potential stakeholders into the process and providing a forum for a collaborative, multi-stakeholder process.

Process Used to Identify the Region's DACs and How DAC's Have Been Engaged

The NSV region as a whole is “disadvantaged” according to DWR’s Proposition 84 median household income threshold level.

Because the region as a whole is classified as disadvantaged, all projects in the NSV technically serve disadvantaged communities (DACs). On a more specific level, several counties have made significant prior efforts to engage DAC's within their county. The examples from Butte, Tehama, and Shasta County are described below.

Butte County

Butte County implemented a “go-to-them” strategy for the Climate Action Plan (CAP) project. In order to reach out to disadvantaged citizens who have never been involved in the process, the County utilized approaches that have proven successful during the General Plan 2030 process, including:

- Working with County staff to identify groups and organizations active in the community
- Creating a presentation template that County staff can use when speaking to these groups.



In addition to traditional outreach methods including presentations, community workshops, public meetings, flyers, and newsletters, Butte County has

also expanded their web presence for regional planning through social networking sites such as Facebook and Twitter.

- Expanding the web presence for the project using social networking web sites such as Facebook and Twitter
- Developing notices and flyers for distribution through various channels including schools, churches, community centers, libraries, local businesses, non-profits, faith organizations, and newspapers.
- Holding two community workshops, four public CAP meetings and public hearings throughout the process of developing the CAP.

Tehama County

Tehama County is rural, with approximately 70,000 residents in 13 communities with separate zip codes plus additional smaller communities. The DAC Census tracts and Community Census Blocks within Tehama County are shown in Figures 2 and 3, respectively.

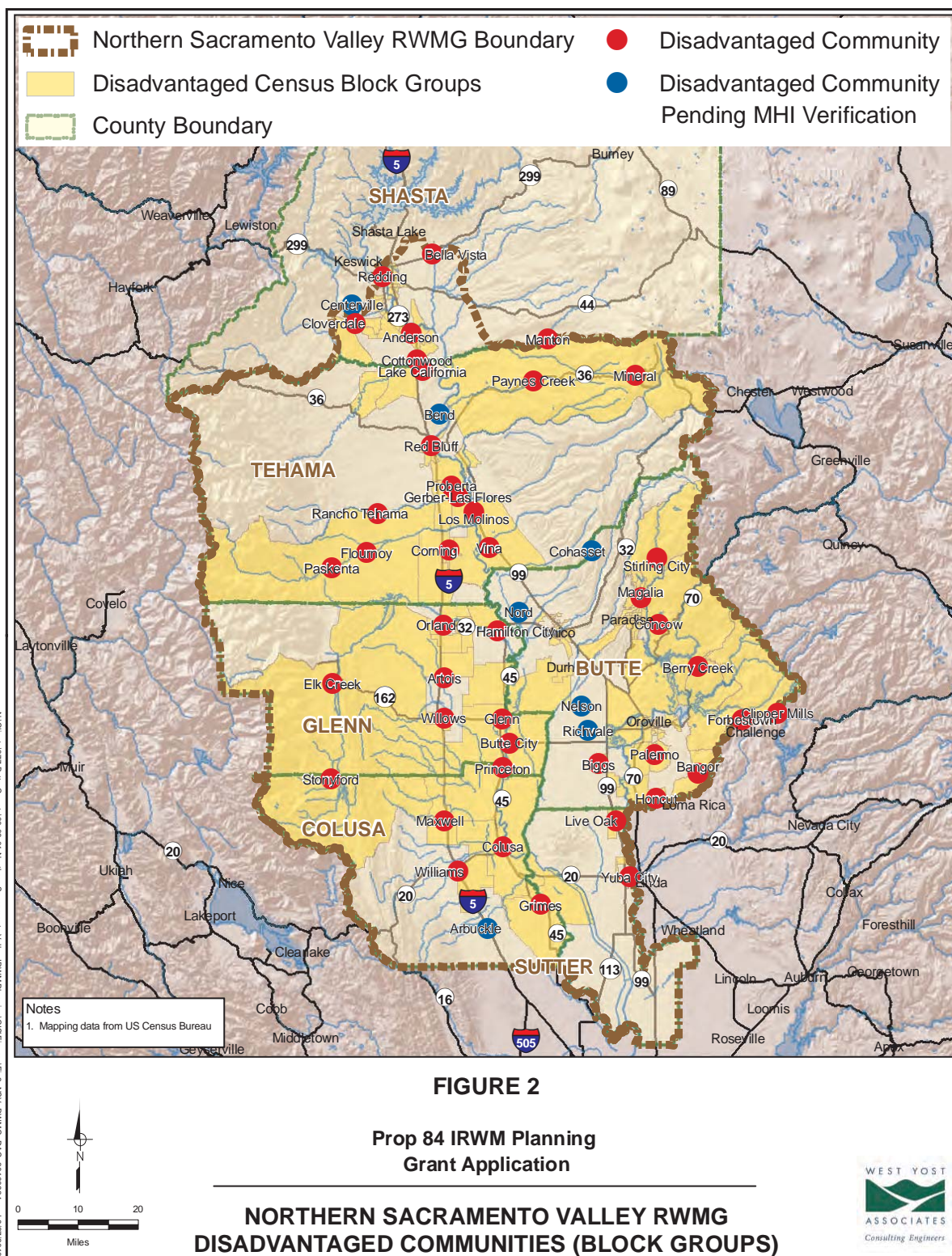
Figures 2 and 3 on the following pages, show that nearly all of the identified communities in Tehama County are economically disadvantaged.

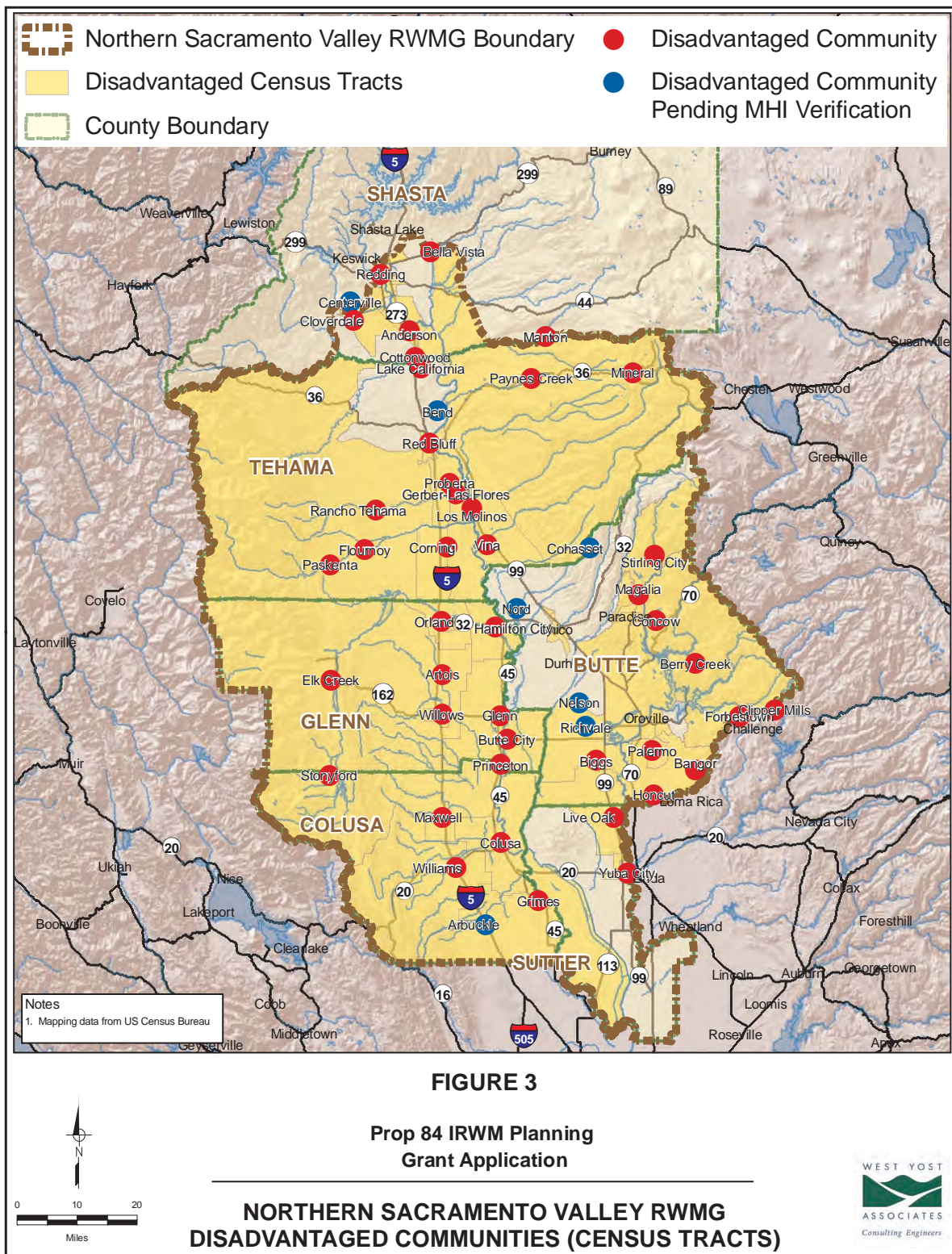
These communities have a variety of water resource management issues and priorities due to substantial differences in their geographic, hydrologic, climate, and economic settings. There are approximately 50 Community Service Districts within Tehama County that provide drinking water to their residents.

The County has already engaged many DACs in water resource planning processes, and has identified a number of critical water resource management issues. Some issues are listed here to illustrate how working effectively with DACs and addressing the needs of DACs will be critical to the success of the NSV IRWMP:

- **The Ponderosa Sky View Water District** Development is in need of additional drinking water resources.
- **The Community of Mineral** derives its drinking water from a spring system, and needs to address associated supply limitations and vulnerabilities.







- **The Community of Manton** must address supply reliability. A 2008 proposal titled “The Big Idea” was introduced by members of the Manton community to achieve multiple benefits such as more reliable water supplies for potable use, irrigation, and fire protection; and to stimulate the local economy; through integrated surface water and groundwater management, including elements of water use efficiency, conjunctive water management, possible water transfers, and others.
- **The Rio Alto Water District** provides water and wastewater services in Lake California, and is currently under a Cease and Desist Order related to their effluent discharge to the Sacramento River. It is high priority for the community to develop an alternative means of managing the community’s wastewater.
- **The Community of Los Molinos** is a small but densely populated community that relies on groundwater for domestic use. The entire community housing depends upon septic systems and there is potential need for a waste water treatment facility to better meet the community’s needs and to protect groundwater and surface water quality.

Shasta County

Shasta County has conducted significant outreach to DACs. All DACs in Shasta County were approached during preparation of Shasta County’s 1997 Water Resources Master Plan Phase 1 Report

During development of Shasta County’s 1997 Water Resources Master Plan Phase 1 Report: Current and Future Water Needs, the Redding Area Water Council gave many presentations to the governing boards of every water district. Many of the water districts are coincident with a particular disadvantaged community. Additional outreach was conducted in the City of Shasta Lake, Redding and Anderson with dedicated evening meetings.

Shasta County has also conducted a successful outreach program for long-term land use planning using resources in the County’s Department

of Public Health. For example, the County has translation services that can be used to gather survey data from Mien and Spanish speaking individuals. The County’s translation resources are used where there is a nexus between a particular planning effort and public health.

NSV RWMG Has Already Begun to Identify and GIS Map Area DACs for Future Outreach Efforts

To quantify the number and location of DAC’s in the IRWM region, the NSV RWMG has already developed an initial understanding of the number and locations of DAC in the region. GIS tools were used to plot published census data from 2000 indicating mean household income relative to the defined poverty level. The mapped data were then used by the planning staff in each County to define DACs for which focused outreach will be conducted. The identified DACs are shown on Figures 2 and 3.

Additional census data from 2007 shows that five of the six counties in the NSV Region have a higher percentage of individuals living below the defined level of poverty than the statewide average of 12.4%. The average for each county is shown in Table 1.

The NSV RWMG is committed to identifying inviting, and encouraging DACs to participate in the planning process. As shown on Figures 2 and 3, DACs are located in the foothill and intermountain areas, in addition to the valley floor. Foothill and intermountain areas exhibit different resource management issues or priorities than the valley floor due to differences in climate, geology, hydrology, and socio-economic factors. The NSV RWMG is cognizant of these potential differences and is committed to ensuring a balance across the planning leadership, advisory and public input processes, and in use of funds to engage DACs within these differing sub-regions.



Table 1. Comparison of Countywide Poverty Level to Statewide Average

State Average for Percent of Individuals Living Below Poverty Level is 12.4%	
Butte	17.1%
Colusa	12.7%
Glenn	15.8%
Shasta	12.7%
Sutter	12.2%
Tehama	19.3%

Five out of six counties in the NSV Region have a higher percentage of individuals living below the defined level of poverty than the statewide average of 12.4%.

Processes Used to Identify Water Related Objectives and Conflicts

The NSV region is newly formed so there has not yet been a region-specific process to identify IRWMP issues and objectives. The NSV RWMG understands that many management issues typical of most areas in California will apply, including water rights and diversions, groundwater quantity and quality, flood management, general water quality issues, and ecosystem enhancement.

NSV RWMG has Established a Framework to Identify Issues, Objectives and Solutions

NSV RWMG member agencies have demonstrated a commitment to certain objectives though previous planning. For example, the member agencies have already demonstrated a commitment to the following management objectives:

- Meet water supply needs of Community Service Districts (many are part of DAC's)
- Deliver water to sustain wildlife refuges
- Keep local agricultural water users adequately supplied by implementing transfers (e.g., Settlement contractors selling water to TCCA water users)
- Identify creative means of conveying water from one area to another (local conjunctive use projects)

Historical Source Documents Provide Significant Progress Towards Objectives

A number of source documents and historical management practices provide significant progress toward establishing issues and objectives for the region. In particular, a number of sources summarize historical efforts and can be used to maximize the efficiency of the planning process for the region. Each of the following sources is discussed below:

- Sacramento Valley IRWMP (2006)
- Sacramento Valley Water Quality Coalition and RWQCB

Many previously identified objectives specifically address the Resource Management Strategies (RMS) presented in the 2009 Update to the California Water Plan. The RMS will be one of the standards by which the potential IRWMP objectives are assessed.

Sacramento Valley IRWMP (2006)

As a starting point, issues and objectives identified in the Sacramento Valley IRWMP (2006) are relevant to the planning process for the NSV IRWMP. Key Sacramento Valley IRWMP objectives potentially applicable to the NSV IRWMP include (but are not necessarily limited to):

- Improve the Economic Health of the Region
- Improve Regional Water Supply Reliability
- Improve Flood Protection and Floodplain Management
- Improve and Protect Water Quality
- Protect and Enhance the Ecosystem

Sacramento Valley Water Quality Coalition and RWQCB

The NSV RWMG recognizes the potential for collaboration with the Sacramento Valley Water Quality Coalition (Coalition) and its Subwatershed organizations. The Coalition, formed in 2003, is a cooperative effort between the more than 8,600 farmers and wetlands managers encompassing more than 1.3 million irrigated acres and supported by more than 200 agricultural representatives, natural resource professionals, and local governments throughout the region to enhance and improve water quality in the Sacramento River, while sustaining the economic viability of agriculture, functional values of managed wetlands, and sources of safe drinking water. The Coalition also continues to pursue partnerships with municipalities and urban areas in the region that are developing storm water management plans and facing increasingly more stringent effluent limitations.

The Coalition includes several members of the NSV RWMG including Colusa-Glenn, Butte-Yuba-Sutter and Shasta-Tehama subwatersheds.

IRRIGATED LANDS REGULATORY PROGRAM

The Regional Water Quality Control Board, Region 5 (RWQCB) oversees the Irrigated Lands Regulatory Program (ILRP), and has the primary objective of protecting water quality. The NSV RWMG does not intend to duplicate or conflict with the Coalition or the ILRP. Rather, it intends to coordinate, support, and incorporate complimentary objectives related to water quality protection. The IRWMP has the potential to include aspects of water quality protection that the Coalition and ILRP are unlikely to address. Some examples include non-agricultural sources of non-point source pollution and various sources of point source pollution that are identified as not being regulated by other existing regulatory programs.



CALIFORNIA RICE COMMISSION'S COORDINATION OF PROGRAMS IN THE SACRAMENTO RIVER BASIN

The Coalition also signed a Memorandum of Agreement with the California Rice Commission to coordinate the respective programs in the Sacramento River Basin. Although water districts are typically not direct members of the Coalition, many districts and companies have encouraged landowners to join and have assisted in grower education through newsletters and information updates.

RWQCB GROUNDWATER QUALITY PROTECTION STRATEGY (ROADMAP)

The RWQCB is developing a Groundwater Quality Protection Strategy (Roadmap) through an active stakeholder process. Developing a Roadmap for the Central Valley Region is not initiating a new regulatory program, but is intended to be an overarching framework or an outline for long range planning. It defines the regulatory programs to be enhanced, and identifies ways to expand on all partnering opportunities with other federal, state, and/or local agencies to protect groundwater quality. Following approval of the Roadmap, work plan(s) will be developed for the higher priority future actions to provide a more detailed description of tasks, timelines, and resources required to implement those actions.

The starting point for the Roadmap is the background information on agencies and organization, groundwater basins, and primary constituents of concern. Current Groundwater Quality Protection Programs being implemented by the RWQCB describe how groundwater quality is being protected now. To assist in the evaluation of existing groundwater quality protection programs and identification of future actions, stakeholder's concerns and issues were also considered.

The final section of the Strategy of the Roadmap focuses on future actions that can be implemented within the next five to twenty years. To illustrate the Roadmap, a description is provided of three basic elements: a) future actions; b) how the actions are prioritized; and c) resource needs to implement the actions.

Implementation of future actions, are not limited to the RWQCB. RWMGs, such as the NSV RWMG are identified as organizations that may play a pivotal role in future actions that address identified concerns and participate in work plans to avoid duplication of efforts.

Process Used to Determine Criteria for Developing Regional Priorities

Previous efforts by NCWA, various water agencies in the region, and the Delta planning process have established a number of priorities that are applicable, at least to some degree, to the NSV IRWM region. The proposed planning process will consider these related priority-setting activities and coordinate the adopted regional priorities. In addition, through the IRWMP public process, the NSV will better define and refine regional priorities. One primary deficiency in developing regional priorities was the lack of an identified and accessible governance process for implementation of the plan. This deficiency was acknowledged by the NSV RWMG participants and therefore the development of a governance structure was made a priority for the NSV RWMG.

Some processes that a new planning process would undertake to arrive at improved criteria for developing priorities include:

- Reflection on past regional planning and data gathering efforts and evaluation of previously set criteria
- Expansion of the interested parties in the regional process to improve equitable representation and assist with updating criteria for advancement of regional priorities
- Collection and analysis of public input and supporting data

- Development of criteria or rationale for new priorities
- Recommendation of new regional priorities
- Adoption and commitment to new regional priorities

In early 2010, while assessing potential governance structures, the NSV RWMG and its consultant met with key water organizations and agencies in each county. As part of those meetings, attendees in each county provided input into what they felt were significant county-wide and regional priorities and what they envisioned was needed for governance of the IRWMP. This process identified several priority planning issues important to the region, including:

- Urban growth
- Eco-system health
- Flood management
- Public access and recreation
- Groundwater and surface water supplies
- Integration of resource management

Through the IRWMP public process, the NSV will better define and refine regional priorities, using this list of issues and the developed criteria as a starting point.

Two past processes have some relevance. First, NCWA and various water agencies developed criteria to set priorities during preparation of the Sacramento Valley IRWMP. Second, the Four County MOU planning process also produced criteria for setting priorities. These efforts are certainly relevant to the NSV IRWMP and will be considered at the outset. However, the NSV IRWMP will consider a much broader range of resource issues than the previous work, which focused more on water supply.

Ongoing Data Collection, Analysis, and Management

Each County maintains a number of processes for data collection and management, as summarized in the following paragraphs. There is not yet an established data collection and management system for this newly formed Region.

The IRWMP will define a long-term data management plan and system that builds on the existing systems and efforts throughout the Region.

Common Activities Throughout Region

GROUNDWATER MANAGEMENT PLANS

A number of general activities are common throughout the region. Each county has, or is in the process of developing, a groundwater management plan pursuant to Water Code §10753 et seq for those areas not covered by another groundwater management plan, such as those lands associated with local water and irrigation districts.

WASTEWATER DISCHARGE

Wastewater treatment plant effluent quality and quantity data are collected and managed at each treatment plant and reported to and stored at the Central Valley Regional Water Quality Control Board. Technical analysis of effluent data is largely driven by discharge permit requirements. Stream gauging data is managed and analyzed by many different agencies, including the USGS, counties, cities, and districts.

Additional Ongoing Data Collection, Analysis, and Management Activities

Some of the additional ongoing data collection, analysis, and management activities relevant to the IRWMP are summarized in the following sections.



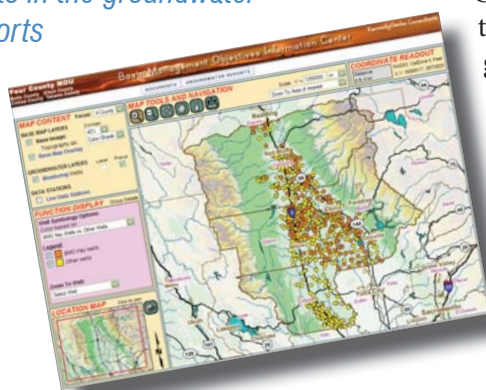
Basin Management Objective Information Center

One of the first outcomes benefiting the region and demonstrating the working relationship within the predecessor Four County area is the Basin Management Objective Information Center (BMOIC). The BMOIC is a user friendly GIS tool created to support groundwater level monitoring data management and reporting relevant to Basin Management Objectives. The BMOIC web site allows the user to navigate through map layers and historical groundwater level data, and to configure maps and reports as needed. The creation of the site was made possible through grant funding from DWR awarded to Butte County through the AB303, Local Groundwater Assistance program.

The original Butte County BMOIC has been expanded to cover the four counties signatory to the 2006 MOU (Butte, Colusa, Glenn, and Tehama).

Operation and maintenance of the BMOIC helps to meet the goals and objectives of each individual county, as well as regional goals. It also allows for a more uniform manner of collecting and reporting data across the region and assists in the groundwater management efforts across the Sacramento Valley.

The BMOIC can be accessed at: <http://gis.buttecounty.net/bmoic3>.



Butte County

GROUNDWATER MONITORING

Butte County has a cooperative agreement with DWR's Northern Region to monitor groundwater levels throughout the basin portion of the county. Historically, DWR completed this work annually in the months of March and October. Pursuant to the groundwater conservation ordinance, which

was codified in 1997, Butte County now conducts monitoring on the same grid of wells during the months of July and August. All data is reported on the DWR Water Data Library. In addition, the County, in cooperation with Butte Basin Water Users Association produces an annual report which provides an analysis of groundwater level trends with input from the County's Technical Advisory Water Commission.

GROUNDWATER FLOW MODEL

Butte County recently updated the Butte Basin Groundwater flow model in IGSM2. The updated model was calibrated and model runs were made for wet and dry year scenarios. These model runs were completed in 2009.

BUTTE BASIN WATER USERS ASSOCIATION AND BUTTE BASIN GROUNDWATER USERS GROUNDWATER MODEL

In response to potential third party impacts related to water transfers, in the early 1990s Butte County, in collaboration with local water districts and purveyors, as well as groundwater pumpers, participated in the formation of Butte Basin Water Users Association (BBWUA). Guided by an MOU financial commitments were made by members to develop the Butte Basin Groundwater Users Groundwater Model. This model was designed to determine how a significant increase in groundwater use associated with a surface water transfer might impact third parties within the Butte Basin.

In the early 2000s, the County assumed maintenance of this model through a lease agreement with the organization and it was updated and calibrated by the County through contracts with the USBR. In 2008, model runs were made with assumption parameters of both dry and wet years.

WATER INVENTORY AND ANALYSIS

In 2001, Butte County completed a Water Inventory and Analysis, which summarizes the water resources within the county and provides estimated urban, agricultural, and environmental needs reflected through current needs. These needs were analyzed through both normal and

drought hydrologic conditions. The inventory was further analyzed by breaking the County into water inventory-units and sub-units, which currently serve as the management areas for the County's Basin Management Objectives.

WATERSHED MODELING PROJECT

In 2010, Butte County finalized a Watershed Modeling project in cooperation with the University of California, Davis (UC Davis), which was funded through the DWR Watershed Program. This model uses satellite imagery to project runoff from throughout the watershed into the groundwater basin. These calculations, made using the physically-based watershed model, provide another approach to the inputs for the groundwater flow model.

All reports and information are available on the Butte County website at: www.buttecounty.net/waterandresource.

Colusa County

The Flood Control and Water Conservation District is not a staffed department in Colusa County thus local government water management duties fall upon the Colusa County Board of Supervisors, County's Planning & Building Department, Public Works and the Agricultural Commissioner's Department. Public Works provides flood management for the County and documents are housed in their office. The Ag Commissioner's Department represents the local landowner's interest in the sub-watershed program developed to address the discharge of agricultural waters.

GROUNDWATER MANAGEMENT PLAN

The Colusa County Planning and Building Department manages the County's "Groundwater Management Plan". Department staff provides the staff duties for the County's Groundwater Management Commission. Colusa County groundwater information including the Colusa County Groundwater Management Plan is hosted on a website by UC Davis at <http://colusagroundwater.ucdavis.edu/>.

COLUSA COUNTY RESOURCE CONSERVATION DISTRICT

Although not an official county department the Colusa County Resource Conservation District (CCRCD) has provided assistance to local government concerning issues relating to natural resources. The CCRCD has historically posted data generated through past DWR grants to the CERES clearinghouse website located at: <http://ceres.ca.gov/discover.html>. The CCRCD utilizes their website (<http://www.colusarcd.org>) to post all watershed related data that they have generated including the Colusa Basin Watershed Assessment and Colusa Basin Watershed Streambank Analysis. The CCRCD also posts information to its own website, which also includes the Bear Creek Watershed Assessment and Bear Creek Watershed Stewardship Plan.

Glenn County

Water resource-related data collected by Glenn County is stored at the county offices, as well as the DWR Water Data Library and the Four County BMOIC.

GLENN COUNTY GROUNDWATER MANAGEMENT PLAN

In implementing the Glenn County GWMP, the Glenn County Water Advisory Committee and the Glenn County Department of Agriculture have identified the following activities to improve groundwater management within the County and increase the understanding of the groundwater basins underlying the County and region:

- Established Water Advisory and Technical Advisory Committees.
- Established basin management objectives.
- Established support for the Water Advisory Committee and Technical Advisory Committee.
- Established procedures for Groundwater Monitoring and Developed Plan for groundwater level monitoring grid.
- Established a water quality network
- Established a GPS-based subsidence monitoring network
- Established procedures for conflict resolution



- Established a web site to disseminate information gained from the Groundwater Monitoring Program and to inform the public regarding implementation of the groundwater management plan and other projects. (website at: www.glenncountywater.org)
- Development of a preliminary plan to facilitate groundwater and coordinated water management
- Appointed a WAC sub-committee to assist with the General Plan Update
- Current groundwater management efforts in implementing summertime BMO's
- Initiated a strategic planning process
- Compiled well data infrastructure map

These activities are all either ongoing or complete.

Tehama County

The Tehama County Flood Control and Water Conservation District was established in 1957 and since then has functioned as a principal entity to oversee many aspects of water resource management in Tehama County. The District is administered under the Tehama County Department of Public Works. In its capacity, the District has been responsible for providing public services related to flood protection (i.e. as levee maintenance), engaging in enactment of various County Ordinances, implementing an AB-3030 Groundwater Management Plan (1996), and supporting various water resource investigations to better understand and manage the countywide water resources and demands.

COUNTYWIDE WATER RESOURCES

The District has historically collaborated with state and federal agencies and other local water entities to manage its water resources. Types of past and current data collection and analyses related to countywide water resources include groundwater level monitoring, a water inventory analysis, a small water systems analysis, and an ongoing assessment of potential groundwater recharge areas. Analysis of data from these past and current projects has been achieved primarily through cooperation with

technical staff from other agencies such as DWR and through consultants.

Data and results from these types of collaborative efforts are housed in a range of venues. The Tehama County Department of Public Works maintains hard copy records and reports from these activities at its headquarters office and publishes many of the records and results on a publicly accessible web page at: <http://www.tehamacountywater.ca.gov/>. Other venues for providing public access to water resource management information include on-line venues such as the BMOIC and the DWR Water Data Library.

Shasta County

DWR has an extensive monitoring network in the high yielding portion of the Redding Groundwater Basin, and Shasta County relies on that for occasional decision making.

INTEGRATED SURFACE AND GROUNDWATER MODEL

The Redding Area Water Council developed an integrated surface and groundwater model that extends roughly from Shasta Lake to the southern boundary of Anderson-Cottonwood Irrigation District and from Whiskeytown Lake to the Millville Plains. The model contained data from all available well logs on file at the DWR, land use, the DWR's monitoring well information and was used to compute basin water balance and water surface elevations. The model was developed by CH2M Hill in the MicroFem engine, with input and output in Microsoft Access. The model was last used in 2007. CH2M Hill advises that the versions of MicroFem and Access are now obsolete and a significant update is necessary before the model can be used again.

Sutter County

Sutter County operates one potable water system (Robbins) and two wastewater collection, treatment and disposal systems (Robbins & Rio Ramaza). The County collects data and submits reports as required under the respective permits to operate these systems. Otherwise, Sutter County does not currently have a groundwater monitoring program, water users association, or H&H models or groundwater models except for floodplain



management purposes in the event of a levee failure.

Water planning and implementation measures for the City of Yuba City are set forth in their 2005 Urban Water Management Plan. Water demands and supplies will be updated as part of the next urban water management plan due in July 2011, including the new requirements to reduce per capita water demands by 20 percent by 2020. The IRWMP will take advantage of the City's data on water demands and use, as well as the latest thinking and studies regarding overall water supply reliability.

How Integrated Resource Management Strategies will be Employed

Integrated resource management strategies will be employed as objectives are developed for this newly formed Region. The Region's issues and objectives must be established first, before the integration process can occur. The process to be used for applying integrated resource management strategies for the newly formed NSV RWMG is described in the Work Plan section.

Examples That Demonstrate Multi-Party Regional Cooperation

Some examples of previous efforts demonstrate multi-party cooperation to integrate resource management strategies.

Mill Creek and Deer Creek Water Exchange Programs Achieve Multiple Objectives of Water Supply and Fisheries Enhancement

There have been previous efforts, such as the Mill Creek and Deer Creek Water Exchange Programs to enhance fisheries and sustain irrigation water supply in Tehama County. These programs are examples of cooperation and integrated management strategies within the NSV Region for achieving more than one objective.

Stony Creek Fan Partnership

Another example is the Stony Creek Fan Partnership, formed in Glenn County. The Partnership was formed to improve scientific understanding of surface and groundwater hydrology and assess the potential to implement conjunctive water management to sustain local water supplies and better position the area to engage in regional and statewide water issues.

Both examples above, and many others in the region that can be cited, have local and regional support among most stakeholders, aim to provide more than one type of benefit, and appear economically feasible and socially acceptable to pursue.

During the development of the IRWMP we will seek to maximize projects and programs that are integrated across water management strategies.

How the IRWMP will be Implemented and What Impacts and Benefits are Expected

After the NSV IRWMP is adopted, it will serve as a comprehensive road map to manage water resources to achieve consistent goals and objectives. The NSV Governing Board is envisioned as a long-range governance platform to sustain leadership in making water resource management decisions. The Board will meet quarterly to maintain cohesion of the NSV RWMG, monitor progress toward meeting plan



objectives, and implement the highest priority projects.

The NSV IRWMP will encourage local agencies to consider broader thinking and coordination when planning projects. Entities seeking future IRWM implementation funding within the region will need to seek support from the NSV Governing Board to apply on behalf of the NSV RWMG. The NSV Governing Board's decisions will be based on the priority assigned to projects during the IRWMP project review process.

The Board of Supervisor-appointed Technical Steering Committee will also function beyond the initial planning effort by providing technical review and support during project implementation.

Short-Term and Intermediate-Term Benefits

In the short- and intermediate-term, some benefits to the region will include establishing:

1. An acceptable platform of leadership that provides balanced representation of diverse interests;
2. Broader knowledge of, and engagement in, continuing water issues, in particular the engagement of DAC's;
3. An ongoing venue to define, coordinate, fund, and implement projects with region-wide benefit; and
4. Accurate, routine, and consistent means of communicating information related to water resources management in the Northern Sacramento Valley, overcoming disjointed data sources and voids in information.

The NSV RWMG recognizes that the six-county region has substantial water resources, but relatively few political votes and representatives at the state and federal levels. Therefore, it is in the best interest of everyone within the NSV Region to remain united through the NSV IRWMP. The common vision presented in the NSV IRWMP will demonstrate solidarity among

the stakeholders within the region and therefore, place the NSV region in a favorable position to have their voice heard and also to receive future state and federal grant funding.

Long Term Benefits

Anticipated long-term benefits of the NSV IRWMP, in addition to continued stakeholder engagement, include:

- improved water supply reliability
- increased water conservation
- improved water quality
- improved storm water capture and management
- improved flood management
- improved wastewater management
- invasive species abatement
- reduction of mercury contamination
- created and enhanced wetlands
- increased environmental and habitat protection.

Existing IRWMP Relative to Current IRWM Plan standards

The existing Sacramento Valley IRWMP covers a large part of the NSV region in addition to areas outside of the NSV, as discussed earlier in this application. The Sacramento Valley IRWMP, developed under the direction of the NCWA through its Northern California Joint Exercise of Power as the Regional Water Management

Group, is not compliant with the current IRWM guidelines published by DWR in 2010. Some aspects of regional water resource management are addressed very well in the Sacramento Valley IRWMP, such as surface water quality issues in the NSV region. Nevertheless, the Sacramento Valley IRWMP focuses predominantly on agricultural water supply and conveyance issues and does not provide adequate attention to critical region topics such as drinking water, groundwater, recycled water, wastewater, and recreation (although it does include other regional plans under a “nested” planning approach). The areas in which the Sacramento Valley IRWMP is deficient in meeting DWR’s new IRWM requirements are drought preparedness, water efficiency and reuse, climate change response actions, environmental stewardship, integrated flood management, groundwater and surface water quality protection measures, Tribal water and natural resources improvement, and equitable distribution of benefits.

The NSV IRWMP will leverage the considerable effort represented by the Sacramento Valley IRWMP by incorporating and adapting elements of the existing plan. The NSV IRWMP will build on those previous efforts through vigorous outreach to stakeholders, including DACs and Tribes, in order to more fully reflect and address the issues and needs of the entire Region.

From the beginning of the process, the NSV IRWMP will be directed by an elected official-appointed governing board, which will provide transparency to the process. In addition the Plan will address the specific issues identified in the 2010 guidelines that were not addressed by the previous IRWMP.



Work Plan Content

The Work Plan approach and tasks are presented as follows:

- New Comprehensive Plan
- General Planning Approach and Process
- Governing Board and Technical Steering Committee
- Timeline and Plan Development Phases
- Specific Work Plan Tasks

New, Comprehensive Plan

The Northern Sacramento Valley Integrated Regional Water Management Plan (NSV IRWMP) is the most comprehensive, proactive effort ever undertaken for water resource planning in the portion of the Sacramento River watershed that is contained in Butte, Colusa, Glenn, Shasta, Sutter, and Tehama counties.

The NSV IRWMP will build on previous water planning efforts, including the existing Sacramento Valley IRWMP, Colusa Basin Drainage District IWMP, the Redding Basin Water Resources Management Plan, and the Butte County Integrated Water Resources Plan. The NSV IRWMP will document the priority issues, objectives, and projects in the region and will identify lead partners, help in securing funding, include a thorough review of projects, and address long-term sustainability. In addition, the NSV IRWMP will provide an implementation strategy for identified solutions. Through the IRWMP development process, the NSV RWMG will seek opportunities for collaboration among agencies within the NSV boundary and neighboring IRWM regions to integrate land use planning and water resource planning.

The Northern Sacramento Valley RWMG has diverse representation and is well-positioned to create a balanced and comprehensive IRWMP for the geographic region. The Northern Sacramento Valley IRWMP will address issues common with immediately adjacent IRWM areas as identified in DWR's 2009 Region Acceptance Process (RAP).

Program Preferences

Part of DWR's new IRWM guidelines give preference to IRWMP proposals that include certain program preferences.

NSV IRWMP will specifically address the program preferences as outlined in the table on the following page.

General Planning Approach and Process

This work plan identifies the IRWMP purpose and goals, outlines the IRWMP organization and content, presents a public process schedule, and defines the technical steps to complete an IRWMP for the region. In developing the IRWMP, the NSV RWMG will build on the past process used by NCWA in the existing Sacramento Valley IRWMP and enhance it to include a greater number of stakeholder groups.

The primary purpose of developing the NSV IRWMP is to improve water management in the Northern Sacramento Valley region, which will be done in compliance with DWR's 2010 IRWM guidelines.

The NSV IRWMP will be developed by the Governing Board-appointed Technical Steering Committee, with consultant assistance and public input. In general, there are four separate tasks leading to developing the IRWMP: (1) develop goals and objectives, (2) develop criteria for projects/programs, (3) develop comprehensive list of potential projects/programs, and (4) develop Plan that filters and organizes projects/programs consistent with the Plan's objectives and ranks such projects/programs consistent with the Plan's criteria.



Specific Tasks That Address Program Preferences

PROGRAM PREFERENCES		TASK 2. OUTREACH PROCESS, MEETINGS, AND FACILITATION								TASK 3. DATA COLLECTION							TASK 4. DEVELOP IRWMP COMPONENTS																			
		2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	3.1	3.2	3.3	3.4	3.5	3.6	3.7	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	4.12	4.13	4.14	4.15	4.16	4.17	4.18	4.19	
1	INCLUSION OF REGIONAL PROJECTS	■															■	■	■	4.4	■							■		■	■		■			
2	INTEGRATION OF WATER MANAGEMENT PROGRAMS AND PROJECTS WITHIN THE CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD REGION	■			■				■																						■		■			
3	RESOLUTION OF WATER-RELATED CONFLICTS WITHIN OR BETWEEN REGIONS	■	■	■	■	■	■	■	■					■			■		■										■	■	■	■				
4	CONTRIBUTIONS TO ATTAINMENT OF ONE OR MORE OF THE OBJECTIVES OF THE CALFED BAY-DELTA PROGRAM	■			■														■												■	■		■		
5	ADDRESS CRITICAL WATER SUPPLY OR WATER QUALITY NEEDS OF DISADVANTAGED COMMUNITIES WITHIN THE NSV RWMG	■	■				■				■			■								■							■		■	■			■	
6	EFFECTIVE INTEGRATION OF WATER MANAGEMENT WITH LAND USE PLANNING	■											■	■			■														■		■			
7	DROUGHT PREPAREDNESS	■									■					■				■	■							■					■			
8	MORE EFFICIENT USE AND REUSE OF WATER	■	■									■								■	■							■								
9	CLIMATE CHANGE RESPONSE ACTIONS	■														■																	■			
10	ENVIRONMENTAL STEWARDSHIP	■									■		■						■	■	■													■		
11	INTEGRATED FLOOD MANAGEMENT	■									■			■			■			■	■							■	■			■				
12	PROTECT GROUNDWATER AND SURFACE WATER QUALITY	■									■			■						■	■							■	■					■		
13	EQUITABLE DISTRIBUTION OF BENEFITS	■	■	■	■	■	■	■			■				■		■					■									■	■			■	



A five step development, review and adoption process applies to each of these tasks:

1. Submit “straw” proposals
2. Technical Steering Committee reviews/modifies
3. Technical Steering Committee sends draft to public for input and review
4. Consultant and Technical Steering Committee modify as needed
5. Technical Steering Committee sends final recommendations to Governing Board for decisions

The Work Plan task descriptions provide more detail.

Governing Board and Technical Steering Committee

Although the planning period for the IRWMP will extend to 2032, the IRWMP focuses on guiding water resources management activities of member agencies and the communities in the region for the next five to 10 years. The NSV RWMG is in the process of implementing a governance structure for the region, capitalizing on the ad hoc Steering Committee that has been meeting for the past few years and establishing an overall NSV Governing Board (the decision-making body of the RWMG.) The Governing Board will have three individuals selected by each of the respective county Boards of Supervisors for a total Governing Board of eighteen people. The governance structure that is being implemented came out of work done by West Yost Associates on behalf of the ad-hoc Steering Committee, as set forth in Technical Memorandum No. 1 (TM1) (Appendix 2). That work began with interviews of water-related entities and representatives in each of the six counties in early 2010. Those meetings are summarized in TM1. West Yost Associates subsequently developed three alternative governance structures (also set forth in TM1) for consideration by both the ad hoc Steering Committee and the six county Boards of Supervisors. Each of the Boards of Supervisors

has now endorsed a common governance framework and structure, incorporated into this application. The governance structure is also addressed under Task 4 in the Work Plan below.

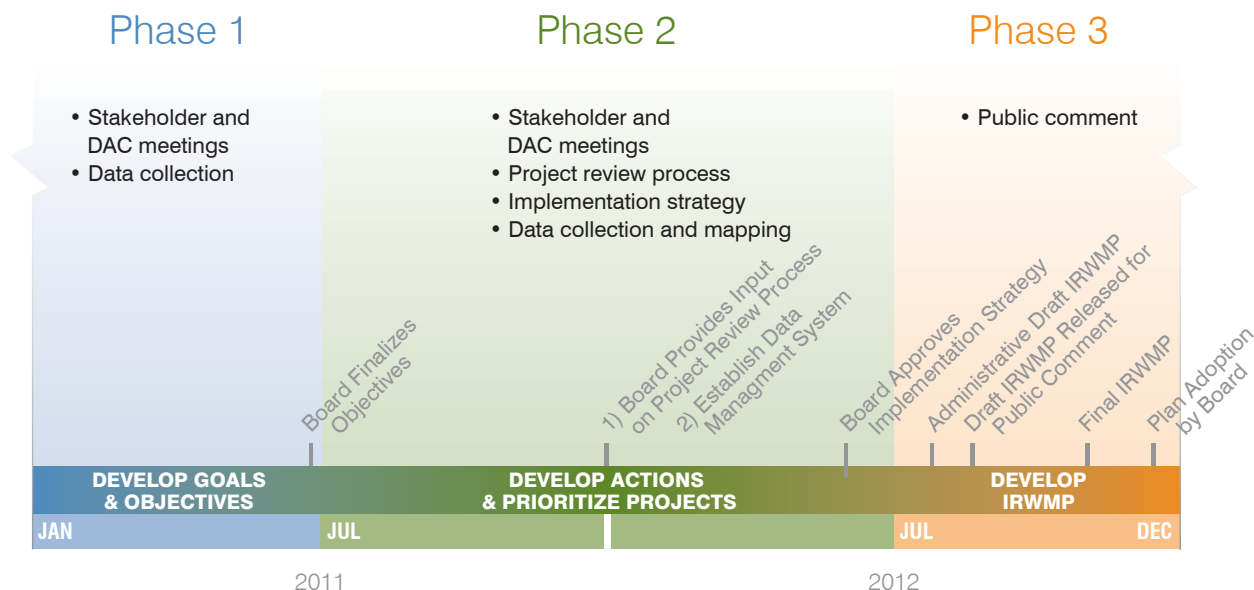
As the IRWMP process moves forward, the working-level group will be the Technical Steering Committee (TSC), which will take the input through stakeholder outreach and scoping efforts and translate that into draft IRWMP elements for consideration by the Governing Board. The TSC will begin this process after input from the first part of the stakeholder process by developing suggested goals and objectives for the IRWMP (building in part by the substantial work done in support of the existing Sacramento Valley IRWMP), as well as developing criteria to prioritize issues, opportunities, and projects. Initial inputs will include all historical, related efforts as described earlier in the application in addition to input from stakeholders and the public. An important aspect of the NSV RWMG’s approach to preparing its IRWMP is to fully examine and integrate environmental and social issues concurrent with water resource planning rather than assessing them as an impact related to the planning process. The goal is to assure a more durable and supportable IRWMP.

Timeline and Plan Development Phases

The NSV RWMG’s overall schedule for performing the work and adopting the IRWMP is presented in Attachment 5. The IRWMP will be completed in three phases as shown in the timeline graphic in Figure 4. The first phase will develop a common mission statement, goals, and objectives for the region, which will be approved by the Governing Board. The second phase will identify actions to achieve the established goals. The third phase will consist of drafting, circulating, and adopting the IRWMP.



Figure 4. NSV IRWMP Development Phases



Concurrent and Integral Water Resource Planning Efforts by Member Counties

Concurrent with the IRWMP process, participating agencies will be performing work that is an integral part of the overall water resources planning and management efforts within the NSV region and will form the foundation for the IRWMP. For example, entities in Glenn County will be completing Stony Creek Fan Aquifer Performance Testing, the Orland Unit Water Users Association pursuing the acquisition of the Orland Project from the Bureau of Reclamation, and Glenn and Colusa counties additional work related to the recent formation of the Sites Reservoir Joint Powers Authority. These Glenn County example and other concurrent efforts integral to the NSV IRWMP from the other counties are summarized in Table 2 on the following page.

As shown in the table, the Colusa County RCD is currently working on a stakeholder-driven Colusa Basin Watershed Management Plan while Colusa County and the City of Williams are updating their General Plans. In Shasta County the following purveyors are updating their Urban

Water Management Plans (UWMPs) due by July 2011: Bella Vista Water District, City of Anderson, City of Redding, and the City of Shasta Lake. Shasta County plans to update its General Plan by 2013 and the City of Redding is finalizing completion of its General Plan in 2010. In Tehama County, an effort to develop a countywide Geographic Information System (GIS) will be conducted. In addition, each city within Tehama County is participating in the development of this GIS database and will connect to the system once the necessary backbone infrastructure is in place. At the same time, the Tehama County AB 3030 Technical Advisory Committee is working with the Tehama County Flood Control and Water Conservation District to update its countywide Groundwater Management Plan that was adopted in 1986. Butte County is currently conducting an investigation into the properties of the Lower Tuscan aquifer, which extends throughout the region predominately in Butte, Glenn and Tehama Counties.





Table 2. Concurrent Planning Efforts Anticipated During the NSV IRWMP Process				
	UWMPs	GWMPs	General Plans	Watershed Mgt Plans
Butte	California Water Service Chico (2011) and Oroville (2011) Paradise Irrigation Dist. (2011) Del Oro Water Company (2011) South Feather Water and Power (2011) Thermalito Irrigation Dist (2011)	Butte County GWMP	Butte County 2030 (2010-2012) City of Chico 2030 (2011)	—
	Other Plans/Efforts Table A Feasibility study - CWS, Chico/Butte County (2011-2013) Lower Tuscan Groundwater Monitoring Investigation (2010-2013)			
Colusa	—	—	Colusa County City of Williams	Colusa Basin Watershed Mgt Plan
	Other Plans/Efforts Site Reservoir JPA, Tehama Colusa Canal Authority Fish Screen			
Glenn	<ul style="list-style-type: none"> Hamilton City (Cal Water) (2011) 	—	Housing Element Updates: <ul style="list-style-type: none"> City of Orland City of Willows County of Glenn 	Lower Stony Creek Watershed Restoration Plan Colusa-Glenn Subwatershed AWEF improvements for the ILRP
	Other Plans/Efforts Stony Creek Fan Aquifer Performance Testing, Sites Reservoir JPA, Orland Unit Water Users pursuing acquisition of Orland Project from the BOR Groundwater Recharge Pilot Program East Corning Basin Tehama Colusa Canal Authority Fish Screen CASGEM Groundwater Monitoring Entity			
Shasta	Bella Vista Water District (2011) City of Anderson (2011) City of Shasta Lake (2011) City of Redding (2011)	—	Shasta County (2011-2013) City of Redding (2010)	—
Sutter	—	Sutter County GWMP	County General Plan Update	—
Tehama	City of Red Bluff (2011)	Original 1986, Update 2011-12	County General Plan Update 2010 Countywide GIS Planning Database Development, 2011	Tehama East Watershed Assessment, 2010.
	Other Plans/Efforts Potential Groundwater Recharge Assessment, 2011-12, Expansion of Tehama County dedicated multi-completion groundwater monitoring well grid (2011-12), Expansion of City of Corning Water Supply, adding one deep domestic well (2011), Tehama Colusa Canal Authority Fish Screen			

UWMP = Urban Water Management Plan

GWMP = Groundwater Management Plan

Identify High Priority Issues and Opportunities in The Ten Program Preference Areas

Based upon information obtained through the public process and additional research and analyses, the TSC will identify high priority issues and opportunities in each of the ten program preference areas by March 2012 to be presented to the Governing Board for consideration. The TSC will further identify additional information needed to adequately identify and evaluate potential solutions. During 2012, the TSC will gather additional information and perform analyses needed to formulate projects to address high priority issues and opportunities.

The TSC, with stakeholder input, will further formulate projects to implement these solutions. The NSV RWMG Governing Board will finalize and adopt the IRWMP in December 2012. The IRWMP will identify water-related issues and potential solutions to those issues, prioritized on the basis of criteria applied equally to all programs and projects identified through this planning process. High priority projects will be developed sufficiently to identify the benefits, costs, and potential implementation constraints. The NSV RWMG will develop an implementation strategy to provide guidelines aimed at maximizing the opportunities for success. An agency or agencies from the NSV RWMG will sponsor each project, working individually or in partnership with member agencies or agencies in neighboring regions, depending upon beneficiaries of the project. It will be the responsibility of the respective agency(s) that sponsor each project to conduct any required CEQA and NEPA environmental analysis, advance its development, and manage its implementation. The NSV RWMG TSC and Governing Board will be the forum through which projects are discussed, coordinated, and potential partnership opportunities identified, including partnerships with neighboring IRWM regions. While the IRWMP will only cover the NSV region for purposes of this planning effort, many potential projects may have impacts on or require the involvement and participation of agencies from other regions.

The work items or tasks and activities presented herein and the resources presented in the budget (Attachment 4) reflect the NSV RWMG's commitment to this planning effort.

Specific Work Plan Tasks

Task 1. Project Management

1.1 Coordination with NSV RWMG Board

With eighteen representatives on the NSV Governing Board, substantial coordination with Board members will be required. This task provides for preparing Board packages and agendas, communicating with individual Board members as necessary, coordinating Board meeting logistics, and similar activities.

1.2 Coordination with NSV RWMG Technical Steering Committee (TSC)

With six counties participating in the NSV IRWMP process, coordination and frequent communication among the members of the Technical Steering Committee (TSC) and other stakeholders will be key to a successful IRWMP process. This task includes communication among TSC members, subcommittees that may be developed, stakeholders, and the public.

1.3 Coordination with Consultant Team

The NSV RWMG is expected to hire one or more consultants in Phase 1 to assist in preparing the IRWMP. This task accounts for coordination and management of the TSC and the lead consultant, facilitation consultant, and any other subconsultants that work on the IRWMP.

After the NSV RWMG fiscal agent (Butte County) executes a contract with DWR, the ad hoc Steering Committee (or TSC if already appointed) will prepare a request for proposals to solicit a consultant team for the implementation of much of this Work Plan. The consultant team will provide technical, planning, facilitation, and public outreach services. The consultant team may comprise one or more consulting companies. The ad hoc Steering Committee (or TSC) will



review the received proposals and collectively select a consultant team. Once the consultant team has been selected, the fiscal agent will execute a contract with the selected consultant(s).

1.4 Project Schedule and Budget Updates

The initial IRWMP schedule is included in Attachment 5 of this application. This IRWMP schedule will be updated as needed throughout the IRWMP process.

Under this task, the NSV RWMG will also track the grant budget and funding match contributions, prepare invoices, prepare quarterly reports, and create a long-term funding plan as described below.

CONTRACT EXECUTION WITH DWR

This task includes the efforts of the NSV RWMG fiscal agent (Butte County) to execute a contract with DWR for the Proposition 84 planning grant.

PREPARE INVOICES AND FISCAL STATEMENTS

As the fiscal agent, Butte County, will be responsible for preparing quarterly and final invoices with appropriate funding match documentation to DWR. The invoices and funding match contributions will be reviewed with the TSC and submitted to DWR in compliance with Proposition 84 grant funding requirements.

Butter County will also submit copies of the most recent three years of audited financial statements per the Proposition 84 Guidelines. The submittal will include 1) balance sheets, statements of sources of income and uses of funds, a summary description of existing debts including bonds, and the most recent annual budget; 2) a list of all cash reserves, restricted and unrestricted, and any planned uses of those reserves; and 3) any loans required for project funding and a description of the repayment method of any such loans. Butte County will also prepare any other fiscal documentation requested by DWR.

During the life of the grant agreement, Butte County will maintain internal controls such as an organizational chart and written internal

procedures outlining receipts, deposits, disbursements, state reimbursement requests, grant expenditure tracking, and guidelines, policy, and procedures on the grant funded IRWMP process. Butte County will also maintain in its files audit reports of its internal control structure and/or financial statements within the last two years, prior audit reports for the IRWMP grant, original grant agreement with DWR, a listing of all bond-funded grants received from the State, a listing of other funding sources for each project, a listing of all consultant contracts, contracts between Butte County and other NSV participating counties or agencies, invoices from all consultants for expenditures submitted to the State for reimbursement, receipts of payments received from the State, deposit slips of payments received from the State, cancelled checks or disbursement documents showing payments made to consultants under the grant, and bank statements showing the deposit of the receipts. Butte County will keep accounting records as required by the Proposition 84 IRWM Guidelines Appendix E.

PREPARE QUARTERLY REPORTS

Butter County will be responsible for preparing quarterly and final status reports on the work and budget. The status reports will be presented to the TSC and submitted to DWR in compliance with the Proposition 84 grant funding requirements.

LONG-TERM FUNDING PLAN

Developing an IRWMP is a significant effort and will require aggressive and careful financial planning. In Phase 1, a funding plan will be developed for the purpose of long-term IRWM sustainability. The funding plan will consider local and other funding sources for individual projects, potential sources of additional state and federal grant funding, eligible in-kind contributions, and cost-share needs to be contributed by participating water agencies and counties. Possible grant sources include various U.S. Bureau of Reclamation grant programs and other state grant programs that may emerge.

The best regional plans will not succeed unless effective communication continues, both within the group and with the public/stakeholders. We expect ongoing expenses for monthly meetings and any



other coordination resources that may be needed to maintain cohesion of the Northern Sacramento Valley RWMG after the IRWMP is completed. Regular meetings will be critical to ensuring that the IRWMP is implemented and updated as may be needed. It will be important to establish an annual dues structure to ensure commitment from participants and that the Northern Sacramento Valley RWMG maintains its original purpose into the future.

The long-term funding plan will be discussed at Northern Sacramento Valley RWMG Governing Board meetings as well as individual county supervisor meetings. Agreement on cost-share allocations among local agency participants will likely take time and involve a wide range of issues. We recognize the importance of getting this ongoing funding contribution decided early in the IRWMP process.

1.5 Coordination with the NSV Water Forum

The Northern Sacramento Valley Water Forum is a diverse group from Shasta, Tehama, Glenn, Butte, Colusa, Sutter, Yolo and Yuba counties representing local governments, agriculture, business and the environment. Their goal is to develop a greater understanding of water-related issues by providing an arena to discuss, promote and support the common interests of local elected officials and water users.

Members of the NSV RWMG serve on the Steering Committee for the Northern Sacramento Valley Water Forum, whose sole mission is to provide educational forums on water-related issues of regional concern and interest. This organization was established in 1999 and works to bring experts on specific issues together in a panel discussion format that is free of charge and open to the public.

The Northern Sacramento Valley Water Forum has provided over a dozen public forums on important water issues such as water transfers, the peripheral canal and flood control. The format is a panel discussion among recognized invited experts followed by a question and answer period that encourages interaction with the public. Each of the

past panel discussions was widely publicized and well attended by the public during the development of the original Sacramento Valley IRWMP. It is anticipated that the Northern Sacramento Valley Water Forum will be used as a means to help to provide much of the public outreach associated with the development of the IRWMP, and certainly to augment outreach since past Water Forums have been widely reported in the press.

1.6 Communication with DWR Staff, Stakeholders, Etc.

During the course of the IRWMP process, members of the TSC will have frequent communications with DWR staff, stakeholders, federal and other various public agencies. This task includes budget for these miscellaneous, anticipated communications. This task also includes budget for developing a website for the NSV RWMG.

Task 2. Outreach Process, Meetings, and Facilitation

Outreach will be a complex process, recognizing the wide range of water-related interests in the NSV region, the distribution of population for this mix of rural and urban areas, and travel times related to geography. In addition, special attention will be given to disadvantaged communities and Tribal interests. This requires leadership and appropriate skills to lead and conduct public outreach so that the public and stakeholders will be engaged, the process will maintain credibility, and there will be opportunity for widespread community participation and support. The TSC will form a Communications subcommittee, consisting of key members of the TSC along with appropriate members of the consultant team. The Communications subcommittee will develop and implement a public process and a public outreach effort, with the assistance of a facilitator who will be part of the consultant team. In addition, the TSC and its Communications subcommittee will seek assistance from the facilitator for selecting the public process structure (Task 2.3) that best fits the needs of the NSV RWMG. Feedback from each public meeting and outreach effort will be essential in assuring that the IRWMP development process succeeds.



2.1 Board Meetings

The NSV Governing Board will meet at least quarterly throughout the IRWMP process and will continue to meet after the adoption of the final IRWMP. During the two-year development process the Governing Board will meet regularly to receive updates on the IRWMP process and make formal decisions after each phase. A list of the eight quarterly planned meetings, plus an initial kickoff meeting, is provided in Table 3 with a brief description of the major topic(s) to be addressed at each meeting.

By the end of Phase 1, the Governing Board will approve the region's objectives. During Phase 2 the Board will be involved in the project review process proposed by the TSC and the Board will provide direction. At the end of Phase 2, the Governing Board will approve the implementation strategy, providing essential direction to the TSC for development of the administrative draft of the IRWMP. By the end of Phase 3, the Governing Board will adopt the final IRWMP.

2.2 Technical Steering Committee (TSC) Meetings

The Governing Board will appoint a Technical Steering Committee (TSC) to carry out the decisions of the Board. The TSC will be a working-level group that will meet monthly, or more frequently if needed. The TSC will be responsible for moving the IRWMP process forward through forming subcommittees and commissioning public stakeholder meetings to identify IRWMP issues, objectives, and prioritize projects. The TSC will also be responsible for selecting, hiring, and managing consultants, and managing funding agreements to the extent appropriate in coordination with the NSV RWMG fiscal agent (Butte County). Decisions made by the TSC will be by majority vote.

The TSC members will have a key role in communicating between the NSV Board and their respective agency Board and the local stakeholders. Members of the TSC will be encouraged to attend stakeholder meetings and at least one member of the TSC will attend each of the stakeholder and disadvantaged community meetings. The monthly TSC meetings will be open to the public. For example, the public will be invited to attend the TSC meetings in which the committee debriefs outcomes of stakeholder meetings and makes final recommendations to the Board on the region's objectives and priority projects.

Table 3. Schedule of NSV Board Meetings

QUARTERLY BOARD MEETINGS	ANTICIPATED TOPIC(S) TO BE ADDRESSED, REQUIRED BOARD ACTIONS
January 2011 (Phase 1)	Kickoff IRWM Process, appoint Technical Steering Committee, approve contract with consultant
March 2011 (Phase 1)	Receive briefing on public process, initial issues and objectives identified, approve consultant contracts
June 2011 (Phase 1)	Finalize/approve region objectives
September 2011 (Phase 2)	Provide direction on project review process
December 2011 (Phase 2)	Receive update on project review process
March 2012 (Phase 2)	Receive update on project review process
June 2012 (Phase 2)	Approve implementation strategy
September 2012 (Phase 3)	Review and provide public comments on Draft IRWMP
December 2012 (Phase 3)	Adopt Final IRWMP



2.3 Develop and Implement Structure for Public Process

The Communications subcommittee, in consultation with a facilitator, will structure a public process to gather necessary input from the public and various stakeholder groups on goals, objectives, programs and projects, in addition to promoting effective communication as the IRWMP development process goes forward. Introductory meetings, run by the facilitator, will review timelines, expectations and ground rules for the outreach and public processes. Initial draft regional goals and objectives, compiled by the TSC and Communications subcommittee from previous planning work, will be presented as a “straw proposal” to help foster dialogue and input from the public, while serving as a starting point.

The TSC and Communications subcommittee will encourage interaction to identify overlapping issues and opportunities for integration. The anticipated schedule of public meetings or workshops is shown in Attachment 5.

The Communications subcommittee will also identify local interest groups, DACs, Tribes, community organizations, and local, state, and federal agencies that may be interested in learning more about the IRWMP. These organizations will receive e-mail updates and newsletters, as well as offers to receive updates on the IRWMP as presented by the Communications subcommittee, TSC, and the NSV Governing Board.

2.4 Stakeholder Input Meetings

The NSV RWMG will hold public meetings throughout the planning region to solicit input from the community regarding the development of the IRWMP. Meetings will be noticed in local newspapers and on county websites, inviting members of the public to attend. They will also include a discussion of this meeting posted on the agenda of each county’s advisory committee and make other public announcements where appropriate. The TSC will also invite representatives of interested local, state, and federal government agencies to attend. Certain stakeholder groups may be disadvantaged

communities. Special attention will be given to informing these communities of the potential or opportunities to resolve existing infrastructure problems and to be apprised on other projects that may be considered for implementation in nearby areas. Full consideration will be given to statewide concerns and interest regarding environmental justice.

The NSV RWMG will hold at least one meeting during Phase 1 and two meetings in Phase 2 in each county in the region in which stakeholders can provide their input to the NSV IRWMP development. Phase 1 meetings will be held in Chico (Butte County), Colusa (Colusa County), Willows (Glenn County), Redding (Shasta County), Yuba City (Sutter County), and Red Bluff (Tehama County). Phase 2 meetings will be located in the same or different cities in each county. Additional stakeholder meetings will be held as necessary throughout the process.

The TSC will also notify Tribes of the IRWMP process and invite them to participate in the stakeholder input meetings. The NSV RWMG will attempt to involve Tribes in direct participation in the IRWMP process, including an initial meeting with Tribal representatives in three different places throughout the region (see Task 2.6). Initial meeting locations will be in Colusa, Butte, and Shasta counties. A higher level of outreach than past planning efforts is anticipated, both with Tribes and all water interests in the NSV region. Evidence in participation by Tribes is already apparent as a staff engineer from the Colusa Indian Community Council recently began attending the ad hoc Steering Committee meetings to become more engaged in the IRWMP process. Notification and engagement of Tribes is described more under Task 4.18.

The purpose of all of the stakeholder meetings will be to present the public with information about the NSV region and the proposed planning process and receive comments from interested parties. The presentations will describe the region encompassed by the proposed IRWMP, including coordination with the neighboring IRWMPs. County and TSC representatives will be at the meetings to answer questions, solicit input, and increase public awareness of the proposed



IRWMP. Documentation of the meetings and the comments received from the public will be recorded and made available to the public via the NSV RWMG website, independent county websites, local libraries, and identified local government offices.

The NSV RWMG will specifically contact currently identified stakeholders (see Appendix 3 for the current list of stakeholders) to ensure they receive notice of the initial public meetings and are invited to participate in the process. The NSV RWMG will continue to update the list of stakeholders interested in participating in the planning process during IRWMP development. Meetings will be regularly scheduled throughout the NSV IRWMP process allowing all interested stakeholders to have multiple opportunities to provide input during the process.

A variety of media will be used in the stakeholder outreach efforts for the development of the IRWMP, including the internet, newspapers, brochures and various reports and studies to entice participation from multiple stakeholders including DACs and Tribes. In addition, the NSV RWMG will host workshops throughout the planning area during the development and implementation of the IRWMP in cooperation with representatives from University of California Cooperative Extension and various county representatives and others as deemed appropriate.

Five out of the six NSV counties also have existing advertized, public, Brown Act compliant meetings. For example, the Redding Area Water Council has regular public meetings with all Redding area water purveyors. Likewise, the Tehama County AB 3030 Groundwater Management Group, Glenn County Water Advisory Committee, Butte County Water Commission, and Colusa County Groundwater Management Commission meet on a regular basis and encourage public attendance and comment. In addition to the specific IRWMP stakeholder meetings, members of the public will be encouraged to provide input through these existing public meetings.

Throughout the development of the IRWMP, stakeholders will be encouraged to participate

in the process. Initial meetings will be key in the identification of the most efficient means of accommodating public input into the process.

2.5 Disadvantaged Community (DAC) Meetings

With the assistance of a consultant it is anticipated that the NSV IRWMP outreach process will include a comprehensive effort to activate and engage stakeholders, including DACs and Tribes in the IRWM planning process. This will be accomplished by utilizing a suite of outreach tools including local and regional media, websites, workshops and brochures.

In the past some interest groups have attempted to place DAC needs primarily within the framework of “environmental justice”, but the NSV region understands that DAC water needs are more than that. Small, particularly disadvantaged communities have needs that extend to flood safety, water supplies and wastewater treatment. Due to often remote locations, regional solutions are sometimes more difficult to put together, but these needs are real.

The NSV RWMG will invite members of all known DACs to public planning meetings during the development of the IRWMP in order to maximize DAC participation. The public will be informed via a NSV RWMG website, public notices in local papers, and announcements at local water district and County supervisor board meetings. To maximize the number of people that understand the IRWM process, key printed and electronic communications will be written in English and Spanish.

One DAC meeting per County is planned in both Phase 1 and Phase 2. DACs within the NSV region will be identified in a number of ways. DACs will be identified as communities with an annual median household income (MHI) of less than 80% of the statewide annual MHI (Proposition 84 guidelines) and characterized by failing or deficient water infrastructure with insufficient means to address the problem. A preliminary map of identified DACs is shown in Figures 2 and 3. One map shows the disadvantaged MHI Census

Block Groups and one shows the disadvantaged MHI Census Tracts. The specific communities identified as disadvantaged are shown as circles.

In addition to the general stakeholder input meetings, which are anticipated to attract a large number of interested parties, the NSV RWMG will hold a number of smaller meetings in disadvantaged communities to allow disadvantaged community residents, who often live in rural areas, to participate in the NSV RWMG IRWM planning process. DAC meetings may be held in smaller DAC towns such as Grimes, Biggs, and Mineral.

The NSV RWMG intends to solicit the services of an independent third party to facilitate and record the meetings with DACs. The NSV RWMG will make fluency in Spanish a preference in the selection criteria for the hired facilitator. Having a facilitator who is fluent in both Spanish and English will maximize the discussion and input from all meeting participants. The NSV RWMG will also work with the Social Services Department of each county for translation services of key communication material. The various languages of outreach material will likely vary by county. Aside from Spanish as a common DAC community language among all six counties, in Sutter County, for example, the Punjabi language will also be an important language in which to print key DAC communication materials.

We provide additional information on specific DAC outreach resources in the stakeholder input section (4.14). A better understanding and broader foundation for engaging DACs will be a component of the stakeholder input program.

2.6 California Native American Tribe Notifications/Engagement

Consistent with the 2009 Update to the California Water Plan, the NSV RWMG will use the term “California Native American Tribe” to signify all indigenous communities of California, including those that are non-federally recognized and federally recognized. In addition to our separate efforts related to Tribal notification and overall stakeholder

outreach, we expect to work with DWR’s Tribal coordinator on questions and focused support we may need including emerging changes to Tribal coordination. Coordination, interaction and other responsibilities related to federal, state and local governmental programs is undergoing great change as it relates to water issues. Some of these are set forth in DWR Director Mark Cowin’s May 1, 2010 letter addressed to California Native American Tribe (Tribe) representatives. The Tribal Communication Committee’s Tribal Communication Plan addresses the importance of Tribal knowledge of and engagement in water planning processes, including those at the local level such as IRWMPs. The 2009 Update to the California Water Plan includes specific recommended actions related to participation of Tribes in local water planning, including IRWMPs. Such concerns were raised in the 2009 California Tribal Water Summit, and formed the framework for additional dialogue at the September 9, 2010 California Water Plan Tribal Workshop. The September 9 meeting began a more detailed dialogue among the Tribes and DWR in the context of the next Update to the California Water Plan. That meeting reinforced the importance of the elements of the 2009 Tribal Communication Plan, which did address a more active engagement in IRWMPs. We will take advantage of follow-up discussions among the Tribes and DWR to help guide our approach to Tribal engagement and outreach, including DWR’s proposed April 2011 IRWM conference with planned Tribal involvement. More information is available at www.WaterPlan.water.ca.gov/Tribal2/.

The NSV RWMG recognizes the importance and uniqueness of engaging Tribes that exist within the boundaries of the NSV RWMG. Although formal notification is not legally required until specific projects undergo the CEQA process, the NSV RWMG plans to notify Tribes of the IRWM planning process as suggested by the IRWM Guidelines. The TSC will employ the Office of Planning and Research’s procedures for Tribal consultation for General Plans and Specific Plans as guidance, as described in Task 4.18. The TSC will first confirm which Tribes have traditional lands located within the NSV region by working



with the Native American Heritage Commission (NAHC).

The TSC will notify Tribes of the IRWMP process and invite them to participate in the stakeholder input meetings. The NSV RWMG will attempt to involve Tribes in more direct participation in the IRWMP process, including an initial meeting with Tribe representatives in three different places throughout the region. Initial meeting locations will be in Colusa, Butte, and Shasta counties. A higher level of outreach than past planning efforts is anticipated, both with Tribes and all water interests in the NSV region. Evidence in participation by Tribes is already apparent as the staff engineer from the Colusa Indian Community Council recently began attending the ad hoc Steering Committee meetings to become more engaged in the IRWMP process.

California Native American Tribe Notification is part of DWR's CEQA review for projects requesting funding under Proposition 84. All applicable projects adopted under the NSV IRWMP will follow the formal notification required by PRC 75102.

2.7 Draft IRWMP Public Meetings

Once the IRWMP Draft is released to the public for comment, the TSC and its facilitator will conduct a public meeting in three different geographic areas (such as Yuba City, Willows, and Redding). The public comment period will last for 60 calendar days and is scheduled to occur between September and October 2012.

At the Draft IRWMP public meetings, the IRWMP consultant and representatives from the TSC will present an overview of the Draft IRWMP organization and content and solicit input from those in attendance. Members of the public will also have the opportunity to provide written comments, so attendance at these public meetings will not be the only way to provide feedback on the IRWMP.

2.8 Miscellaneous Meetings (with DWR, other RWMGs, etc.)

The NSV RWMG anticipates periodic meetings with DWR and other state or regional governmental agencies throughout the IRWMP process. In addition, the NSV RWMG is aware of many inter-regional issues that will need to be coordinated with other IRWM regions. The schedule and budget allow for these miscellaneous meetings to occur approximately every other month for the duration of the IRWMP process.

Inter-regional meetings may include meetings with regions that overlap or abut the NSV RWMG boundary:

- Upper Feather River IRWMP
- Sacramento Valley IRWMP
- Westside Regional Water Management Group
- Shasta County neighboring regions
- Sacramento River Funding Area

Likely meetings and coordination with the Proposition 84 Greater Sacramento River Funding Area and various neighboring IRWM regions are described in greater detail below.

REGIONAL OVERLAP/BOUNDARY ISSUES

The discussion in the following sections will describe how the NSV RWMG will interact with adjacent and overlapping areas within the greater Sacramento River Hydrologic Region. Outreach has been made to each entity and agreement has been made regarding how coordination and collaboration will take place between the sub-regional efforts. It is anticipated that these agreements will be formalized in the near future through an MOU or other agreement among parties.

Relationship with Upper Feather River IRWMP

The NSV RWMG has an overlapping area with the Upper Feather River Region IRWM in the portion of Butte County that includes the Upper Feather River watershed. Both planning areas consider the overlap area to be an important and appropriate part of both the NSV RWMG and the Upper Feather River Region for a number of reasons:



1. The Upper Feather River Region is based on a watershed boundary which encompasses the entire Feather River watershed upstream of Lake Oroville.
2. It is important to include Lake Oroville and the bottom portion of the watershed in the regional boundary because Lake Oroville provides a discrete point where management actions in the Upper Feather Region can be monitored and measured on a macro scale. Since the Feather River watershed supplies the State Water Project's primary storage facility at Lake Oroville, monitoring and measuring effects on the watershed scale is an important means of quantifying benefits and directing watershed investment in collaboration with DWR and the State Water Project contractors.
3. The Plumas National Forest, which is one of the key partners in the Upper Feather IRWM program and manages nearly half of the land in the Upper Feather River watershed, includes areas that extend into Butte County in the vicinity of Lake Oroville.

Butte County and the Upper Feather River IRWM agree that coordination of projects within this overlap area is appropriate and plan to address the means of coordination through an MOU. The MOU will address planning and management in the overlap area to determine areas of responsibility, and provide for appropriate consultation on certain matters. For example, the communities of Paradise, Magalia, and Concow are located on the western edge of the watershed in Butte County. For purposes of municipal water and wastewater services, any integrated management issues would best be addressed by those communities coordinating with Butte County, the NSV RWMG and the other population centers in the valley. For forest management and Fire Safe activities, there is already coordination between the Plumas National Forest and the various Butte County Fire Safe Councils, which will be enhanced through the MOU.

Relationship with Sacramento Valley IRWMP

The NSV RWMG planning area shares the common groundwater basin that overlies the Tehama and Tuscan groundwater aquifers. The Sacramento Valley IRWMP overlies the valley portion of each of the six counties and thereby overlies portions of the NSV RWMG planning area. The NSV RWMG individual county Boards have clearly defined existing governance structures and regulatory authorities. However, they recognize the value derived from coordination of activities, objectives and strategies of common regional participants. In addition, the NSV RWMG entities also recognize the value of their independent utility on specific activities and participants, which may or may not be included in the Sacramento Valley IRWMP. For example, the local governments that make up the NSV RWMG have fiduciary and regulatory responsibilities in the following areas which cannot legally be abdicated to non-governmental agencies:

- Water supply;
- Water quality;
- Environmental stewardship;
- Flood management;
- Internal drainage;
- Drought preparedness;
- Wastewater collection, treatment and discharge;
- Domestic water treatment and distribution;
- Watershed management;
- Recycled water;
- Groundwater management;
- Land use;
- Natural habitat and conservation;
- Conjunctive use; and
- Emphasis on reduced dependence on imported water.

Therefore, the NSV RWMG has created a new planning region within their County boundaries, but will continue to collaborate and coordinate with the developers of the Sacramento Valley IRWMP, many of which are participants in



the NSV effort. Both the NSV RWMG and the Northern California Joint Exercise of Powers agree that coordination of existing projects within this overlap area is appropriate until the NSV IRWMP is completed and approved. During the 2009 DWR Region Acceptance Process (RAP), both of these regions were conditionally approved and DWR requested that they work together to address the overlap areas. Since the conditional approval of the RAP, these two groups have met with DWR twice to discuss the overlap. At the last of these two meetings in August 2010, the sponsors of the Sac Valley IRWMP agreed that they would not seek funding under Prop 84 and supported the award of funding for the furtherance of the NSV IRWMP. This agreement, and hence removal of the “conditional acceptance” standing for NSV RWMG, has been reflected in a letter dated September 22, 2010 from Paula Landis at DWR (see Appendix 4).

Relationship with Westside Regional Water Management Group

The NSV RWMG has an overlapping area with the Westside RWMG in the portion of Colusa County that includes the Bear Creek watershed, which is a subwatershed of the Cache Creek watershed. Both planning areas consider the overlap area to be an important and appropriate part of both the NSV RWMG and the Westside RWMG for a number of reasons. For example, the Westside RWMG is based on a watershed boundary which encompasses the entire Putah and Cache Creek watersheds. It is important to include the Bear Creek watershed in the Westside RWMG boundary because Bear Creek is a tributary to Cache Creek. At the same time, Colusa County is a participating member of the NSV RWMG based on political and jurisdictional boundaries. The NSV RWMG entities, which have clearly defined existing governance structures and regulatory authorities, recognize the value derived from coordination of activities, objectives and strategies of common regional participants.

The NSV RWMG will continue to collaborate and coordinate with the Westside RWMG, while retaining its regional independence. Colusa County, the Westside RWMG, and the NSV RWMG agree that coordination of projects within

this overlap area is appropriate and plan to address the means of future cooperation and coordination through an MOU or other agreement. The MOU or other agreement will address planning and management in the overlap area, areas of responsibility, and provide for appropriate consultation on certain matters. For example, for purposes of agricultural water management in the Bear Creek watershed, any integrated management issues would best be addressed by Colusa County through the NSV RWMG. However, for ecosystem management in the Bear Creek watershed, integrated management issues would be best addressed by the Colusa County Resource Conservation District through the Westside RWMG.

Shasta County Neighboring Regions Efforts: Upper Sacramento-McCloud to the north, the Upper Pit River Watershed to the east, and Feather River Watershed in the southeast

Because the NSV RWMG only covers the Redding Basin portion of Shasta County, there is no overlap with other IRWM regions in Shasta County. However, there are three other IRWM regions in Shasta County: the Upper Sacramento-McCloud to the north, the Upper Pit River Watershed to the east, and very small slivers of the Feather River Watershed in the southeast.

Preliminary meetings conducted during preparation of this grant application indicate that the Upper Pit River watershed, the Upper Sacramento River-McCloud and the NSV IRWMPs have a variety of issues in common. It is clear from the initial discussions that ongoing interregional coordination will be necessary to ensure that the three IRWMPs adequately address these topics, which include: groundwater resources, Tribal outreach, consequences of a potential increase in height of Lake Shasta Dam, consequences of re-introduction of anadromous fish above Lake Shasta, and issues associated with the State Water Resources Control Board's Irrigation Lands Program.

A preliminary strategy for ensuring coordination will be to conduct a minimum of three interregional workshops attended by RWMG members and IRWMP consultants. These

workshops will be half-day and, initially, facilitated by the Upper Pit River Watershed IRWMP's consultant. However, the budget of this planning grant proposal assumes assistance from the Center of Collaborative Policy. In general, each of the meetings will be designed collaboratively by a minimum of one representative from each region with support materials prepared in collaboration with the consulting team taking primary responsibility for developing the meeting materials, meetings, and summaries.

It is anticipated that the outcome of these meetings will be the progressive refinement issue statements, identification of additional studies or assessments, and/or development of a process to ensure ongoing collaboration on key issues during implementation of each participant's respective IRWMP. The outcomes of the meetings will be integrated into appropriate sections of the Upper Pit River Watershed IRWMP based on the decisions of the RWMG, TSG and subcommittees. Other participating IRWMP representatives will integrate the results of this interregional workshop series into their plans at a level of detail that is consistent with the rest of their document.

Relationship to the Proposition 84 Sacramento River Funding Area

The NSV RWMG Region is engaged in coordination and planning with all of the IRWM Regions in the Sacramento River Funding Area (SRFA). DWR's map of IRWM funding regions identifies nine planning efforts in the SRFA: American River Basin, Cosumnes American Bear Yuba (CABY), NSV RWMG, Sacramento Valley, Upper Pit River, Upper Sacramento-McCloud, Yuba County, Westside, and Feather River.

In June of 2008, representatives from each of the nine Regions met to discuss common interests at various locations within the funding area. These meetings have been focused on communication and collaboration, identifying joint projects, and on several specific objectives, that include:

- Ensuring that adjacent or overlapping regions define an appropriate level of coordination,

- Recognizing the need for additional planning, and the need for state funding to support it, in all of the independent regions,
- Exploring the concept of an equitable funding distribution among regions within the SRFA, for possible proposal to DWR, and
- Sending a common message that the SRFA, as the major source of water for much of the rest of the state, should receive a significant portion of the "interregional" funds.

The various RWMGs in the region have developed specific agreements or understandings with adjacent plans with which they have a boundary overlap. Over the course of the SRFA meetings the group has identified the specific planning needs of each IRWM area. The ongoing coordination throughout the SRFA is expected to continue indefinitely and to be memorialized by an area-wide MOU or other agreement in the future.

SRFA members have been working to identify formulas for distributing implementation grant funds within the funding area. The group has also identified mechanisms for intraregional project development and coordination. This provides the NSV RWMG an additional forum for collaboration, communication, coordination, and joint project development. As the SRFA meets roughly once a quarter, depending on external factors such as grant finding cycles, it is expected that there will be a maximum of six such meetings over the life of this project.

2.8.1 KICK-OFF MEETING FOR INTER-REGIONAL COORDINATION

This initial inter-regional coordination meeting will be held in a central location and will be attended by two primary representatives from each IRWMP region. The purpose of the meeting will be to identify general and specific issues of mutual concern. At the close of the meeting, a list of identified issues and concerns will be distributed to each attendee (hardcopy and electronic) for presentation to their respective RWMGs. Each IRWMP's representative will be responsible for presenting the information to the RWMG, receiving input and comment, and preparing a brief summary of the RWMG conversation for



submittal to the kick-off meeting participants. This preliminary list of issues will serve as the agenda for the first meeting of the expanded interregional coordination workgroup.

2.8.2 CONDUCT TWO ADDITIONAL INTER-REGIONAL WORKSHOPS

The overall goal of the workshop series is to ensure that the staff, consultants, and RWMGs of all three IRWMPs have a common understanding of issues and topics that will affect the development of goals and objectives, project development, and selection of resource management strategies (RMS). For this reason, after the kick-off meeting, an additional meeting will be conducted in the opening months of IRWMP development to ensure that the idea exchange is represented in the earliest stages of plan development. Once the initial set of meetings is complete, it is anticipated that a single meeting later in the plan preparation process will be conducted to synchronize strategies and approaches both within and between IRWMP regions.

2.8.3 ONGOING SUPPORT OF INTER-REGIONAL WORKSHOPS

Initially, the Upper Pit River Watershed consultant will serve as staff to this process, particularly with respect to the kick-off meeting. However, a line item for the Center for Collaborative Policy is provided in each of the IRWMP budgets. In general, the agendas for each meeting will be determined at the close of the previous meeting with the agenda and all supporting materials sent to participants a minimum of ten days in advance of the next meeting. Agendas, materials, and post-meeting outcomes and summaries will be posted on the Upper Pit River Watershed website with the other IRWMPs disseminating this information based on the capacities and preferences of their respective RWMGs.

2.8.4. PARTICIPATION IIN OTHER PLANNING EFFORTS WITHIN THE REGION

Several regional organizations are currently investigating and developing a variety of regional initiatives that address topics of concern to the NSV IRWMP Region. Active participation in these efforts by RWMG members may

prove instrumental in resolving regional water management conflicts, implementing resource management strategies, developing objectives, identifying objective measurement criteria, and developing projects. Provision of in-kind hours to enable NSV RWMG members to participate in these activities is included in the project budget.

Task 3. Data Collection

The Plan will be driven in part by information gathered on supporting technical resources (stream flows, groundwater levels and quality, etc.) as well as projects/programs. This requires an organized and central approach to collecting and organizing such data so that it will be readily available for development of the Plan and is easily accessible to the parties. During the first phase of the IRWM process, the TSC will appoint a Data Management subcommittee to develop and/or select a data management system (DMS) for the NSV RWMG. The Data Management subcommittee will consist of key members of the TSC along with appropriate members of the consultant team. At their discretion the Data Management subcommittee may bring in members of their individual agency staffs to support this work. The Data Management subcommittee will be tasked with documenting how various agencies in the NSV region collect, analyze, monitor, store, and report data. To do this, the Data Management subcommittee will lead the efforts under Task 3 which includes reviewing and compiling existing data and identifying data needs. Task 3 will primarily be conducted and completed during Phase 1 of the IRWMP process as the data collected will help set the framework for understanding the region and developing the region's issues and objectives. Still, data collection efforts will be ongoing throughout the drafting of the IRWMP and beyond the adoption of the Plan. Given the limited resources available through the potential DWR IRWMP grant and local agencies, much of the data collected may necessarily be qualitative, rather than quantitative. Every effort, within budgetary constraints, will be made to collect quantitative data.



3.1 Review Existing Sacramento Valley IRWMP

The first step in developing the NSV IRWMP will be to review the relevant information contained in the Sacramento Valley IRWMP document, drafted by the NCWA through the Northern California Joint Exercise of Powers, since the existing Sacramento Valley IRWMP covers a large part of the NSV region and because it includes many of the same participants.

Although this subtask allows for some time to review this useful document, the time is limited because the NSV region and Sacramento Valley region boundaries differ and the existing plan contains information that is nearly five years out of date. Much new data will need to be collected through the subtasks described below.

3.2 Compile Groundwater and Surface Water Supply Use Information for IRWMP

The Data Management subcommittee and IRWMP consultant will solicit groundwater and surface water supply use information from water agencies in the NSV region. The IRWMP consultant will use the data received to prepare regional maps of water use.

3.3 Interview Public Works Staff

The Data Management subcommittee and IRWMP consultant will interview public works staff (or functional equivalents) from each county, city and major water agency as needed to gather information on wastewater, recycled water, water quality, recreation, flood management, and other miscellaneous topic relevant to that service area. The IRWMP consultant may use the data received to prepare regional maps to help identify drinking water quality areas of concerns, failing or deficient wastewater facilities, and other topics that emerge as potential concerns in the region.

3.4 Interview Resource Conservation District Staff and Agricultural Commissioners

The Data Management subcommittee and IRWMP consultant will interview each county's resource conservation district staff and Agricultural Commissioner (or functional equivalents) as needed to gather information on invasive species problem areas, ecosystem restoration needs and ongoing invasive species abatement projects. The IRWMP consultant may use the data received to prepare regional maps to help identify areas of invasive species concern.

3.5 Research Land Use/Land Use Planning Efforts in the NSV Region

The Data Management subcommittee and IRWMP consultant will coordinate with local agency planners throughout the region and research the existing land use planning efforts underway in the region. The information obtained through this subtask will be used to effectively integrate land use planning with water resources planning in the NSV region.

3.6 Research Demographics Information for IRWMP

The NSV IRWMP will necessarily contain basic demographic information to adequately describe the NSV region. Basic demographic information such as existing population and population projections, income, race and ethnicities, and sizes of particular population centers in the region will be collected. The Data Management subcommittee and IRWMP consultant will review the 2010 U.S. Census data when it is available in order to make sure that no DACs are missed in outreach efforts. This is important because DACs identified in this Work Plan are based on 2000 U.S. Census data as the more recent data is not yet available.

3.7 Collect Data Needed for Climate Change Adaptation Evaluation

As described in Task 4.16, the NSV IRWMP is required to address climate change and how it may threaten the region's water resources.



The NSV IRWMP will also have to address climate change adaptation and mitigation measures. Any data required to identify these adaptation and mitigation measures will be collected with the resources allocated under this subtask. For example, obtaining and mapping evapotranspiration projections for the NSV region may be conducted under this subtask.

Task 4. Develop IRWMP Components

4.1 Governance

Governance by its nature will be specific to each RAP IRWMP region. The RAP-approved Northern Sacramento Valley (NSV) RWMG currently exists through a Memorandum of Understanding (MOU) signed by Butte, Colusa, Glenn, Shasta, Sutter, and Tehama counties. The history of this MOU is described in detail in the Background section. The NSV RWMG ad hoc Steering Committee conducted several stakeholder meetings (one in each county) in early 2010 and considered many potential governance structures for the RWMG. Recommended options for governance structures are summarized in the Technical Memorandum No. 1 in Appendix 2. This was addressed earlier in more detail in the introduction to the Work Plan. Each county Board of Supervisors considered the governance options that would best fit the needs of the NSV RWMG and selected the option which includes three members appointed by each of the six county Boards of Supervisors to serve as representatives from each county. All 18 members of the NSV Governing Board are expected to be selected by October/November 2010, with a first meeting no later than January 2011. Active participation by regional water interests will continue.

Since the NSV RWMG (formerly 4-County RWMG) MOU was established in 2006, an ad-hoc Steering Committee has been meeting regularly to coordinate NSV RWMG planning activities. The ad hoc Steering Committee comprises key management staff from each of the counties and major water agencies. Typical meetings include approximately 10 to 15 staff-level representatives.

According to the DWR IRWM Guidelines, the governance requirement is intended to “...ensure that an IRWMP has the structures and procedures that maximize functionality, participation in the plan, and plan longevity.” The Guidelines also state that governance should be effective in updating and implementing the IRWMP, while safeguarding and supporting collaboration among stakeholders. Through discussions with the NSV ad-hoc Steering Committee and the individual county-level groups in early 2010, it was determined that a governance structure for developing an IRWMP could be less formal with a less restrictive structure and make-up than a governance structure for implementing projects.

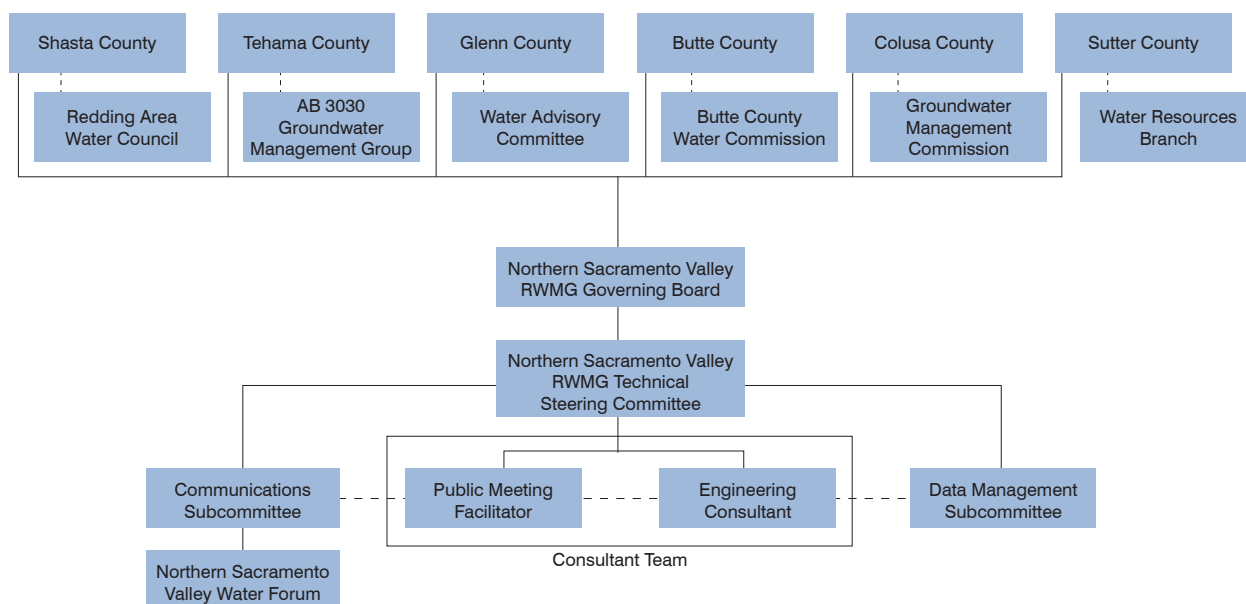
A lesson learned from the Sacramento Valley IRWMP is that the governance structure it employed was a group of representatives from member irrigation districts that did not meet publicly after adopting the Plan. In order to ensure the NSV RWMG’s success, the long-term governance structure needs to be sustainable and committed to both IRWMP development and implementation. The sustainability of the NSV IRWMP is that it finds its roots in six local governments who have made a commitment to work together in an open and inclusive manner to develop an IRWMP for their region.

The NSV Governing Board will establish an organization and fee structure, as well as select a Technical Steering Committee (TSC) to carry out the decisions of the Board and provide recommendations to the Board.

The NSV Governing Board will ensure the IRWMP will provide for and be responsible for the following:

- Public outreach and involvement processes
- Effective decision making
- Balanced access and opportunity for participation in the IRWMP process
- Effective communication – both internal and external to the IRWMP region
- Long term implementation of the IRWMP
- Coordination with neighboring IRWMP efforts and State and federal agencies

Figure 5. NSV RWMG Organizational Structure



- The collaborative process(es) used to establish plan objectives
- How interim changes and formal changes to the IRWMP will be performed
- Link water planning to land use planning
- Updating or amending the IRWMP

Based on input received by the ad hoc Steering Committee, the NSV Board is expected to have a number of prominent publicly elected officials. A benefit of this is the Board members will be well-informed and will have experience in making decisions on both water and land use matters. The governance structure is set-up to link water management and land use decisions and encourage a proactive working relationship among local land use planners and water managers.

The TSC will be responsible for moving the IRWMP process forward through public stakeholder meetings that will identify IRWMP issues, objectives, and prioritize projects. The TSC will also be responsible for oversight of the selection and hiring of consultants and provide input into management decisions. Such decisions made by the TSC will be by majority vote of all the Board-appointed TSC members. The TSC will have the responsibility of updating and providing recommendations to the NSV Board

throughout the IRWMP process. In addition to having key publicly elected officials serving on the Governing Board, each of the individual county Board of supervisors has in place an advisory group that provides input on water issues prior to such issues coming before the respective Boards of Supervisors. Anticipated activities of the NSV Board during each meeting are described in detail in Task 2.

The TSC will ensure that the NSV IRWMP is completed according to this work plan and Proposition 84 IRWM Plan standards. For example, in accordance with 6066 of the Government Code, the NSV RWMG TSC will publish a notice of intent to prepare the IRWMP and a notice of intention to adopt the IRWMP after the IRWMP has been completed. An organization chart for the NSV RWMG governance structure is shown in Figure 5.



This figure also shows each of the existing individual advisory groups that provide input on water issues to their respective county Boards of Supervisors. The IRWMP organizational structure has four levels: Governing Board, TSC, two subcommittees (Communications, Data Management), and consultant team. The consultant team is a combination of the engineering consultant and public meeting facilitator.

In general the work for individual tasks in the work plan will be carried out with a similar development, review and decision process (to the extent it is warranted):

1. Submit “straw” proposals
2. Technical Steering Committee reviews/modifies
3. Technical Steering Committee sends draft to public for input and review
4. Consultant team and Technical Steering Committee modify as needed
5. Technical Steering Committee sends final recommendations to Governing Board for decisions

Butte County will act as the lead agency during development of the IRWMP for fiscal and contract needs of the NSV RWMG. Vickie Newlin, from the Butte County Department of Water and Resource Conservation, will serve as the NSV IRWMP Project Director ensuring that invoices are paid and reimbursements are received by the state, and that each county provides its agreed upon funding match. The engineering consultant will serve as the NSV IRWMP Project Manager ensuring that the NSV IRWMP process is moving forward according to the schedule.

The Final IRWMP will be approved by the NSV Board. Other public agencies in the NSV region will also be asked to adopt the Final IRWMP as a sign of acknowledgment, acceptance, and commitment to the NSV RWMG.

Through the IRWMP process, including several Board, TSC, and public stakeholder meetings, the NSV RWMG will evaluate its governance structure and maintain the flexibility to modify

its governance structure if necessary to effectively implement the long-term IRWMP.

4.2 Region Description

A lot of region description information has already been compiled for the NSV RWMG. The NSV IRWMP will include an expanded version of the region description that was included in the 2009 RAP application. Maps will be created to visually identify where water quality areas of concern are located throughout the region as well as key water supply infrastructure and regions of agricultural and municipal water demands. Some of the pieces of information for the description will be researched under Task 3 and others will be gathered through the public workshops in Task 2. For example, documenting areas of major water related objectives and conflicts will be compiled through both researching written documents as well as receiving input from various stakeholders. Water supply, demand, water quality, and demographics information as well as climate change vulnerabilities will be compiled under Task 2. The IRWMP chapter on the region description will also include a description of neighboring and overlapping IRWM Regions.

The known neighboring and/or overlapping IRWM Regions include the Upper Feather River RWMG to the northeast, the Westside RWMG to the south, the Upper Sacramento-McCloud to the north, and the Upper Pit River Watershed to the northeast.

4.3 Objectives

Phase 1 of the IRWMP process will focus on identifying issues and developing goals and objectives for the region. Therefore, the Phase 1 stakeholder input meetings will focus on developing region objectives. Prior to the initial stakeholder input meetings the TSC will meet and develop an initial list of objectives based on existing planning documents, in the region including the Sacramento Valley IRWMP, the Butte County Integrated Water Resources Plan and the Redding Area Basin Plan (compiled

under Task 3). This list will be presented to the attendees at the initial stakeholder input meetings for comments and editing. Stakeholders may also identify additional objectives and refine the existing objectives presented so that the most important watershed objectives are made clear. The TSC, with this stakeholder input, will take into account factors such as geography, stakeholder makeup, and water management issues along with overarching goals including Basin Plan Objectives, 20x2020 water efficiency goals, requirements of CWC 1540 (c), and measurability to develop the final recommended objectives. The TSC will present its final objectives list and priorities to the NSV Board for approval at the end of Phase 1. Having objectives firmly established by the beginning of Phase 2 will be important in order to effectively identify and review projects during Phase 2.

All IRWMP objectives will be established as part of a collaborative effort by the members and stakeholders of the NSV RWMG and discussion on how these objectives were developed will be included in the IRWMP. An explanation of objective prioritization or why objectives were not prioritized will also be included in the NSV IRWMP.

Some of the NSV RWMG objectives are readily apparent and were identified in the 2009 RAP application such as:

- Improve water quality
- Meet future in-County water demands
- Protect and enhance biological resources
- Maintain and enhance economic health of County
- Improve water management
- Increase understanding of existing environmental conditions
- Protect water rights
- Minimize third party impacts
- Integrate watershed management programs
- Minimize cost effects

Through stakeholder input, the NSV RWMG will likely identify additional objectives and refine the objectives so that the most important watershed objectives are made clear.

4.4 Resource Management Strategies

The NSV IRWMP will use the Resource Management Strategies (RMS) included in the 2009 Update to the California Water Plan (CWP) to help meet the IRWMP objectives that will be adopted. RMS will be a topic at the Phase 1 and 2 planned

Table 4. Template - NSV Resource Management Strategies

CWP IDENTIFIED RESOURCE MANAGEMENT STRATEGIES	SPECIFIC STRATEGIES RELEVANT TO THE NORTHERN SACRAMENTO VALLEY REGION	EXISTING PROGRAMS OR PROJECTS THAT EMPLOY THIS RMS	IRWMP PROGRAMS OR PROJECTS THAT WILL EMPLOY THIS RMS
Reduce Water Demand	<ul style="list-style-type: none"> ■ Agricultural water use efficiency ■ Urban water use efficiency 		
Improve Operational Efficiency and Transfers			
Increase Water Supply			
Improve Flood Management			
Practice Resources Stewardship			
Other Strategies			



stakeholder meetings. The meetings will solicit information on the RMS already being practiced in the region and those RMS that stakeholders believe would be practical and most useful in achieving region objectives. A template example of the table that will be included in this section of the IRWMP is shown in Table 4. This table will list the CWP RMS along with the specific strategies within each RMS category that are potentially relevant to the NSV region and a list of existing projects and potential IRWMP projects that will address each RMS.

The NSV RWMG will aim to maximize the diversity of all the applicable strategies that are considered and implemented and documentation of how the various RMS were decided upon will be included in this section of the IRWMP. To do this, during the project review process, the TSC will provide a higher weight to projects that address identified NSV RMS.

4.5 Stakeholder/Resource Integration

The purpose of the NSV IRWMP will be to integrate water management strategies for the entire NSV region. By taking into account stakeholder concerns, institutional concerns and processes, and integrating resources throughout the Sacramento River watershed, this Plan will be an essential region-wide planning document. Although the NSV IRWMP will not likely have a section on “integration” it is listed as a subtask under “Develop IRWM Components” because integrating stakeholders into the IRWM process effectively and integrating local resources into the regional effort is intertwined with developing the IRWM components. The processes, structures, and procedures that foster integration will be apparent in NSV IRWMP sections such as governance, stakeholder outreach, data management, and project review process.

The NSV RWMG plans its resource integration to consist of combining the resources and expertise of each of the NSV water agencies and counties to aid the NSV planning effort. Each County’s experience and expertise in effective stakeholder involvement will be employed to the benefit of the entire NSV RWMG. In essence, integration in the NSV RWMG means combining the strengths that each local water agency and county exhibits

and using these strengths to benefit the regional planning efforts.

On the project level, where funding sources are being considered for projects, the NSV RWMG will first consider the existing capacity within the region to implement these projects (or parts of the project). The NSV RWMG recognizes that part of the advantage of regional planning is that common objectives of many local interests can often be achieved through one regional project and often times resources needed for project implementation (personnel, finance, materials, and equipment) may benefit from economy of scale. The planning decisions made in the NSV IRWMP will consider integrating the needs of the region and not just the needs of specific entities in the NSV RWMG.

4.6 Project Review Process

During the second phase of the IRWMP process, the NSV RWMG will conduct a project review process and incorporate factors such as how stakeholders will be able to provide input during the submittal, review, and selection process to develop the project list and how and when the list will be updated. The procedures for how individuals and entities can submit projects for review in the IRWM process will be determined in Phase 1. One method that has been talked about so far is to provide a place on the NSV website where people can submit their project information.

After this project review process, the NSV RWMG will develop an implementation schedule that represents the plan for advancing the management of water and other resources to fulfill the established goals and objectives for the region. Implementing the respective projects will generally involve one or more of the NSV counties - individually or together, and compliance with CEQA and (if necessary) NEPA will be an integral component of the implementation process. The willingness and readiness of the various agencies to implement the work will have been assessed in the prioritization process.

With the projects submitted for review, the TSC will determine if certain projects can be combined



or modified to function more effectively as a multiple purpose project. The TSC will develop a list of potential projects that appear to warrant integration. This list will be reviewed by the stakeholders, local water agencies, and the NSV Board. The TSC will apply the prioritization criteria to determine if relative improvements are gained by integrating projects. Where integration shows measured improvement, the strategy for implementation will be addressed along with other projects.

As part of project ranking, the TSC will consider the objectives established in Phase 1, resource management strategies (RMS), readiness to proceed, and project financing. To assist the selection process, the project prioritization score will be based on:

- Project readiness – what level of planning has already been completed for this project to move forward;
- Project funding – what level of matching funds can be available; and
- Project’s potential to reduce water conflicts in the region.

Greater project priority will be given to projects that are ready to be implemented. This prioritization also means that projects still needing planning will be in a separate category from projects ready to be implemented within six months. There may be different levels of readiness established that will be linked to priority.

The project review process will culminate in the creation of a section on the region’s project review process for the IRWMP. The review process will include the procedures for submitting a project to the IRWMP, the procedures for review of projects to implement the IRWMP, and the procedure for communicating the list(s) of selected projects as well as the criteria used to rank, prioritize, and categorize projects.

4.7 Impacts and Benefits

A simplified impact and benefit analysis regarding implementation of the IRWMP will be included in the IRWMP to document the potential impacts and benefits of the IRWMP to entities within the region,

including DACs and California Native American Tribal communities, as well as to entities within neighboring or overlapping regions. These impacts and benefits will have been presented, discussed, and developed during the stakeholder workshops in Phase 1 and 2. Some of the impacts and benefits expected to be of concern to stakeholders in the NSV region are related to Delta flow criteria, modifications to the State Water Resources Control Board water quality control plan, and pending legislation. This section of the IRWMP will summarize and document those identified impacts and benefits.

To help determine the impacts and benefits of various projects, project proponents considered in the Phase 2 Project Review Process will be required to include a list of impacts and benefits associated with their particular project – as project proponents are often the most knowledgeable about impacts and benefits associated with their project. This list will be reviewed by the TSC and presented to the Governing Board.

Under the assumption that extensive impact and benefit analyses will occur closer to project implementation, the IRWMP will just include a screening level discussion of potential impacts and benefits associated with implementation of the Plan. In addition, key findings and conclusions regarding pre-implementation impacts and benefits of projects will be included. The NSV RWMG will include an impact/benefit table in this section of the IRWMP. The table would be similar to that shown in the IRWM Guidelines and would include a column for the various projects to be analyzed on potential impacts/benefits within and external to the NSV region. A template of the table that may ultimately be included in the IRWMP is shown below in Table 5 along with a fictitious example.

Where possible, quantifiable impacts and benefits will be included, such as the acre-feet per year that will be added to the water supply or better managed. Otherwise, descriptive impacts and benefits will be stated.

4.8 Plan Performance Monitoring

During the second phase of the IRWMP process, the TSC will develop a plan for tracking the



Table 5. Template - Known Impacts and Benefits of Implementation of NSV IRWMP Programs and Projects

	WITHIN NSV RWMG		INTER-REGIONAL	
Program/Project	Potential Impacts	Potential Benefits	Potential Impacts	Potential Benefits
Aquifer storage and recovery (example)	Construction-related impacts	<ul style="list-style-type: none"> Water supply reliability (increase in reliable supply by 5,000 acre-feet) decreased reliance on imported water better developed water quality to customers decreased TDS discharges from wastewater treatment plants 	<ul style="list-style-type: none"> increased power consumption increased carbon footprint 	decreased TDS discharges from the wastewater treatment plants to surface streams being used as supply by downstream users
	Template		Template	

IRWMP performance and monitoring the progress of the projects contained in the Plan.

The IRWMP will include criteria that will be used by the NSV RWMG to evaluate the progress made to achieve plan objectives and the process linking completion to the IRWMP implementation. Specific components of these criteria will be developed by the TSC – who will be responsible for IRWMP implementation evaluation, frequency of the NSV RWMG’s project implementation performance, and an explanation of how a Data Management System (DMS) will track IRWMP implementation. Persons responsible for development of the project-specific monitoring plans and activities will be identified as well as what stage of the project a monitoring plan will be established. The typical components of these project-specific monitoring plans as well as how findings from these plans are used to improve implementation of future projects will also be included in the IRWMP.

4.9 Data Management

During the first phase of the IRWMP process, the TSC will appoint a Data Management subcommittee to develop and/or select a data

management system (DMS) for the NSV RWMG. The Data Management subcommittee will be tasked with documenting how various agencies in the NSV region collect, analyze, monitor, store, and report data. As a first step, the Data Management subcommittee will lead the efforts under Task 3 - which is focused on developing information specifically for the IRWMP. However, the Data Management section of the IRWMP will focus on ongoing data collection, analysis, and reporting efforts that will continue beyond the adoption of the IRWMP. The IRWMP will include a description of how data is collected, validated, and shared among different entities in the region. A focus on how data will be made available to stakeholders will be included in this description. This data management section will include a brief overview of the data needs within the NSV IRWM region, typical data collection techniques, how stakeholders contribute data to the NSV DMS, and who is responsible for maintaining data in the DMS. Descriptions will be included of data collection QA/QC measures, data transferring and sharing among the NSV RWMG and other interested parties, and data distribution and compatibility with State databases including SWAMP, WDL, GAMA, CEIC, and CERES.

During the first phase of the IRWMP process, the TSC will poll stakeholders about the usefulness of existing data management systems in the region and about the additional data needs of the region. The Data Management subcommittee will then evaluate different DMSs that would be appropriate for the NSV RWMG. One option for which the NSV RWMG is presently aware and the Data Management subcommittee would consider is the Sacramento River Watershed Information Model (SWIM), <http://sacriver.org/wim>. SWIM is an online map-based clearinghouse for publicly-contributed watershed and conservation-related data and documents. SWIM was originally funded by DWR, and designed by the Sacramento River Watershed Program (SRWP) using the State Natural Resources Agency's Data Management Framework. SWIM indexes, manages, and displays project information on digital maps. Users can search the catalog for data and documents using text search or a map interface. Also, SWIM includes an online GIS mapping tool with over 200 different data layers that can be used to design and download custom maps for anywhere in the Sacramento River Watershed. Currently, the managers of the SWIM program are considering charging a monthly stipend for data management activities. This option will be considered by the NSV RWMG when selecting a DMS.

Regardless, of the DMS chosen, the Data Management subcommittee will need to identify common location for watershed information. For the most part, voluminous data already exists as water resource planners, county, state and federal agencies, watershed groups, and researchers have accumulated enormous volumes of Sacramento River watershed management, monitoring, and conservation-related data including: GIS layers and CAD drawings, permitting documents, monitoring datasets, project reports, photos, web links, and other digital files. The Data Management subcommittee will be tasked with identifying and developing a central location for this existing resource-related information so that this information is accessible and utilized while remaining within budgetary limits and considering long-term funding sustainability.

By the middle of Phase 2 (January 2012), the Data Management subcommittee will select a DMS. Once the DMS is functioning, it may be useful for:

- geotagging proposed projects and submitting them for consideration;
- managing and collaborating on documents;
- use on the NSV RWMG's website;
- making public data readily available to the public through the NSV RWMG website;
- incorporating local GIS data to the regional data center; and
- sharing data with neighboring and overlapping RWMGs.

4.10 Finance

The NSV IRWMP will include a section on IRWMP Financing which will include a program level description of the sources of funding and the potential funding sources for the construction and O&M of projects and programs intended to implement the IRWMP. Potential sources of funding may include local agency funding or state funding through DWR's IRWM and SWFM programs, the state revolving fund, Department of Fish & Game, and other state grant or loan programs. On a federal level, funding may be available through the Bureau of Reclamation Water SMART or other grant program, EPA-funded drinking water quality grants, or American Recovery and Reinvestment Act (ARRA) funded grants and loans. This section of the IRWMP will also include other funding sources available such as private research and pilot study grants through universities or professional organizations such as the Water Research Foundation.

To help determine the financial needs to implement the NSV IRWMP, projects considered in the Phase 2 Project Review Process will be required to include a cost estimate and identify



Table 6. Template NSV IRWMP Projects Funding, Last Updated: 9/28/10

ACTIVITY/ PROJECT	PREVIOUS AND EXISTING FUNDING SOURCES AND AMOUNTS (CAPITAL/ INITIAL COST)	ANTICIPATED FUNDING SOURCES (CAPITAL/ INITIAL COST)	OTHER POTENTIAL FUNDING SOURCES (CAPITAL/ INITIAL COST)	FUNDING SOURCE FOR PROGRAM LONGEVITY OR PROJECT O&M	NOTES
IRWMP Development	Local Agencies: \$19,500 (for Work Plan and Application)	DWR: \$1 million; USBR: \$100,000		Local agencies are expected to share the burden of maintaining and updating the IRWMP. Additional grants from DWR may be available in the future	IRWMP Grant request was submitted to DWR 9/28/10; response pending
DAC Wastewater Treatment Facility Upgrade (example)	none	Ratepayers; SRF	ARRA	Ratepayers are expected to pay for future O&M.	

Template

initial and long-term potential funding sources for that particular project – as project proponents are often the most knowledgeable about local, governmental, and private agencies with an interest in potentially funding their project.

The NSV IRWMP will include a table showing the existing and potential funding sources for the IRWMP development as well as the associated implementation projects, and anticipated O&M costs. The table would also include an indication of the certainty and longevity of the funding sources. A template of the table is provided in Table 6.

4.11 Technical Analysis

A description of the technical information sources and/or data sets used in Task 3 to develop water management needs in the IRWMP will be

provided as well as an explanation of why the information is representative or adequate for development of the Plan. Descriptions of any studies, models, or other technical methodologies used to analyze the data and how they aid the RWMG's and stakeholder's understanding of the water management picture for the planning horizon 20-year period will also be included.

Each project listed in the IRWMP will require technical information and analysis to be submitted along with the project scope. This project technical information will be the responsibility of the project proponent – not the NSV RWMG.

4.12 Relation to Local Water Planning

A description of the how the NSV RWMG will coordinate its IRWMP with local plans to make sure the Plan includes current, relevant elements of local water planning and water management issues common to multiple local entities in the region will be included in this section of the IRWMP.



Where appropriate, water use data and information will be compiled and presented consistent with the planning subareas which will be identified in Task 3. Information on water use that may be needed to formulate and evaluate projects for the IRWMP will be obtained under Task 3, from existing IRWMPs and other local planning documents in the region. In addition, this section of the IRWMP will include a comprehensive list of local water planning documents in existence along with when they were adopted and when they are expected to be updated. An example of this table is shown in Table 7.

Table 7. Template Local Water Planning Documents in the NSV Region

WATER PLANNING DOCUMENT	YEAR ADOPTED	NEXT ANTICIPATED UPDATE YEAR
Colusa Basin Watershed Management Plan	2011 (pending)	TBD
City of Redding Urban Water Management Plan	2005	2011
Butte County Integrated Water Resources Plan	2005	TBD
Butte County Inventory and Analysis	2001	2012
Template		

Water use, both quantity and quality, will be addressed in terms of applied water, consumptive use, and excess applied water or return flow. Under Task 3, the Data Management subcommittee will work closely with public works department staff from local water agencies to evaluate historical water use patterns and to project water use for the future. Water use will be compiled for the following categories of uses: municipal and industrial, domestic, agricultural, environmental, and recreational. Population and land use information from municipal and County General

Plans in the region will be used to characterize the spatial and temporal distribution of water use.

1. MUNICIPAL AND INDUSTRIAL

Municipal and industrial water use data and information will be developed with respective public works/utility departments of the cities of Shasta Lake, Redding, Anderson, Red Bluff, Corning, Tehama, Chico, Oroville, Gridley, Biggs, Live Oak, Willows, Orland, Hamilton City, Colusa, Williams, Yuba City, and water purveyors for the unincorporated communities. This information will be coordinated with the general plans of the counties, cities, and communities to ensure a compatible forecast of land and water use within the region.

2. DOMESTIC

Domestic water use relates to the water use of rural households and farmsteads. Although domestic water use is not as geographic-specific as municipal water use, the estimates of domestic water use will be compiled in relation to the planning for use in subsequent projects formulation and evaluation.

3. AGRICULTURAL

Agricultural water use will be evaluated using information from the Agricultural Commissioner's office and DWR's land use surveys. This information will be compiled according to the respective agricultural water purveyors and potentially sub-areas within or adjacent to the respective purveyors' jurisdictions for use in subsequent projects' formulation and evaluation.

4. ENVIRONMENTAL

The high priority aquatic and riparian ecosystem enhancement objectives identified in Phase 1, will determine the amount of additional water needed for environmental purposes. No effort has been devoted to development of a region-wide plan for aquatic ecosystem enhancement until now.

5. RECREATION

The high priority recreational objectives identified in Phase 1, will determine the amount of additional water needs for recreational purposes. No region-wide plan for water-related recreational



opportunities existed prior to development of the NSV IRWMP.

4.13 Relation to Local Land Use Planning

One of the benefits of the NSV Board including publicly elected officials is that the Board members will likely be well-informed and have experience in making decisions on both water and land use matters. The governance structure is set-up to link water management and land use decisions and encourage a proactive working relationship amongst local land use planners and water managers.

The NSV IRWMP will include a description of how water management input is considered in land use decisions, and vice-versa, in the region. Included in this section will be how land use planning entities and the RWMG interact, who provides input at county supervisor or city council meetings regarding project or land use decisions that may impact water supply or water quality, and whether or not land use planners are part of the IRWM governance structure or project selection committee.

The opportunities for which the NSV RWMG will be able to benefit land use planners include:

- Floodplain management information
- Flood control planning
- Groundwater recharge and conjunctive water use
- Treatment and conveyance facilities
- Stormwater and runoff management
- Water conservation efforts
- Watershed management and restoration

The opportunities for which local land use planners will be able to provide input to the NSV IRWMP include:

- Municipal landscaping programs
- Public access and recreational area management

- Changes in land use that affect water resources
- General plan updates and long-term planning
- Planning review
- Development review
- Water supply for public safety and emergency planning purposes
- Habitat management

To ensure open lines of communication between land use planners and water managers, land use planners will be encouraged to attend TSC meetings and stakeholder workshops in Phase 1 and 2.

This section of the IRWMP will include a description of the current relationship between local land use planning entities and IRWM entities as well as a description of current and future efforts to establish an interactive relationship between land use planning and IRWM planning. Rather than conduct the coordination between the local water agencies and local land use planning entities, this task is budgeted and limited to writing the IRWMP section on local planning process integration. Each TSC member, however, will also conduct briefing meetings with local planning departments in its jurisdiction.

4.14 Stakeholder Involvement

An initial list of stakeholders that may want to participate in the NSV IRWM planning effort is attached in Appendix 3. Throughout the IRWMP process this list will be updated as additional stakeholders are identified and as others choose not to participate. Prior to submittal of this application, potential participants were contacted and given the option of opting out of the planning process. This letter communication is included in Appendix 5. The list of stakeholders interested in and/or actively participating in the NSV RWMG planning effort will be presented in this section of the IRWMP. The IRWMP will describe the processes to provide outreach and opportunity to identified stakeholders in the region. Disadvantaged communities (DACs), communities with a median household income (MHI) less than 80% of the statewide average,



will be identified in the IRWMP and the process for how they are identified and what efforts have been/will be taken to include them in the RWMG will be described.

The NSV RWMG approach to stakeholder involvement is described below and will be described in further detail in this section of the NSV IRWMP.

As described in Task 2.3, the Communications subcommittee, in consultation with a facilitator, will structure a public process to best facilitate a public participation NSV IRWMP final product. The public process will initially start with all individuals interested in the IRWMP gathered together for introductory meetings during which the facilitator will review timelines, expectations, and ground rules. The initial region goals and objectives, compiled by the TSC and Communications subcommittee from previous planning work, will also be presented for comment at this meeting.

The Communications subcommittee will also identify additional local interest groups, community organizations, and local, state, and federal agencies that may be interested in learning more about the IRWMP. These organizations will receive e-mail updates and newsletters, as well as offers to receive updates on the IRWMP as presented by Communications subcommittee, TSC, and NSV Board.

Figures 2 and 3 show the geographic areas (denoted by gold areas) where the DAC's are located in the NSV region. The map suggests that some DACs exist in some foothill and intermountain areas apart from the valley floor. For these DACs, different types of resource management issues may take priority due to differences in climate, geology, hydrology, and socio-economic factors than might be priority on the valley floor. The NSV RWMG is cognizant of these potential differences and is committed to ensuring a balance among the leadership, advisory and public input, and use of Proposition 84 funds to engage DACs.

With the assistance of a consultant it is anticipated that the IRWMP outreach process will include

a comprehensive effort to activate and engage stakeholders, including DACs and Tribal interests in the IRWM planning process. This will be accomplished by utilizing a suite of outreach tools including local and regional media, websites, workshops and brochures. The NSV RWMG identifies the internet and social media such as Facebook and Twitter as affordable and useful tools. Additionally, the NSV RWMG will cooperate and coordinate with other interested local and regional resources to invite participation and deliver outreach programs. These programs may be in the form of group activities, written materials, and web-based information. Possible resources include:

- University of California Cooperative Extension in Tehama, Glenn, Colusa, and Shasta Counties;
- Resource Conservation Districts and Watershed Conservancies in each county;
- County Departments such as the Agricultural Commissioners, Planning and Public Works in each county;
- Farm Bureaus and Cattlemen's Associations in each county;
- The Chamber of Commerce in each county;
- Tribal Councils in each county consistent with our Tribal outreach strategy outlined in Task 2.6;
- Managers of various Community Service Districts; and
- Other entities as they become apparent.

A better understanding and broader foundation for engaging and providing outreach to DACs will be achieved if these types of local and regional resources work cooperatively.

4.15 Coordination

The nature of integrated regional planning is such that extensive coordination is required for successful and efficient planning. The NSV RWMG has already identified a number of local agencies and stakeholders within the region (see Appendix 3). This section of the IRWMP will document the established communication



mechanisms between the NSV RWMG and local agencies and stakeholders. Coordination will be a topic of discussion at the first set of stakeholder and DAC workshops as the TSC would like input from local agencies and stakeholders on their preferred communication mechanisms. An example of a communication mechanism might be that project descriptions for all water-related projects that entities in the region intend to implement (for projects over say \$25,000) are requested to be submitted to the TSC for RMS tracking. A NSV RWMG website, created under Task 1.6, will assure that local agencies and stakeholders can quickly and easily notify the TSC of upcoming projects. By keeping the TSC informed of all significant water projects in the region, conflicts can best be avoided.

To ensure effective coordination between any neighboring RWMGs and IRWMPs, the TSC will designate one member to track the plans and projects of each neighboring or overlapping RWMG. For example, the TSC member from Colusa County will likely be selected to represent the NSV RWMG at Westside IRWMP group meetings and serve as the point person for coordination between the two regional group's projects. A list of the individuals, or at least the agencies they represent, will be presented in this section of the IRWMP. A preliminary list of individuals responsible for inter-regional coordination is listed in Table 8.

There are also several local, state, and federal agencies that will be important to the development of the NSV IRWMP. This section of the IRWMP will include a list of all those agencies with a role in the region, along with a description of the planned coordination activities with these agencies. One way that the NSV RWMG plans to coordinate with DWR is through inviting a staff person from the Northern Region office to regularly attend TSC meetings.

Table 8. Preliminary Inter-regional Coordination Assignments

NSV RWMG COUNTY/ AGENCY RESPONSIBLE FOR COORDINATION	COORDINATING INDIVIDUAL	NEIGHBORING RWMG
Colusa County RCD	Patti Turner	Westside RWMG
Shasta County Water Agency	Eric Wedemeyer	Upper Sacramento and Pit River RWMGs
Butter County	Vickie Newlin	Upper Feather River; Sacramento Valley; Sacramento River Funding Area

4.16 Climate Change

Climate change has not been formally considered in most previous planning, but it has been an important public policy issue for the past decade. We are mindful in particular of California's engagement in climate change in the context of water and other natural resources, particularly in the 2005 and 2009 Updates to the California Water Plan and the 2006 report by DWR, "Progress on Incorporating Climate Change into Management of California's Water Resources." Those reports identified areas of vulnerability regarding water, from greater flood variation and risk to potential substantial reductions in Sierra Nevada snowpack. Other potential impacts include increases in demand (Particularly from agriculture) to serious impacts on forests and fisheries habitat. Projected potential impacts to rainfall vary widely, from drier to wetter than normal in the future. It is the potential increased variability in rainfall that is of greater concern. Such impacts have been forecasted as possibilities by extending the work on global warming models done under the auspices of the Intergovernmental Panel on

Climate Change, to regional models specific to California. Important risks have been identified which require actions for both “adaptation” and “mitigation” as those terms are used in the overall climate change debate.

”Adaptation” means developing tools and actions to allow our water and other resource programs to continue to function under future changed conditions resulting from climate change. This requires programs and projects that are resilient enough to respond successfully to a changed environment. “Mitigation” is simply the concept of offsetting impacts of future programs/projects to those factors that are likely to contribute to future climate change. In the simplest terms, this translates into reducing a program’s/project’s “carbon footprint” (reducing greenhouse gas emissions that would otherwise result from a program or project). How adaptation and mitigation will be implemented in the context of water resource decisions – particularly in the context of an integrated regional water management plan – is still at an early stage. All IRWMPs will need to address these concerns, but the means and actions to do so will emerge over the next few years.

The NSV IRWMP will address the issue of climate change by assessing the potential effects of climate change on its region; consider adaptations to those effects; and seek to mitigate greenhouse gas (GHG) emissions. The IRWM Guidelines identifies three documents (Climate Change Scoping Plan, Managing an Uncertain Future: Climate Change Adaptation Strategies for California’s Water (2008), and 2009 California Climate Adaptation Strategy) to be kept in mind in addressing these issues. The IRWMP will include an evaluation of the adaptability to climate change of water management systems in the region and incorporate ways to reduce energy consumption and GHG emissions as practical and appropriate.

4.17 Mercury Strategic Plan (Inter-regional)

Through the efforts of the Sacramento River Watershed Program a Mercury Strategic Plan will

be included in this section of the IRWMP. The budget for this task will be covered by the inter-regional grant (and associated funding match) for which the Sacramento River Watershed Program is currently applying. If the Sacramento River Watershed Program is unsuccessful in obtaining grant funding for the Mercury Strategic Plan, this section of the IRWMP will not be included. However, the NSV IRWMP will include mercury issues as mercury is clearly a major water quality issue that needs to be addressed.

Mercury is the leading cause of water quality impairment in the Central Valley. Mercury sources include abandoned gold mines in the Sierras and legacy mercury mines in the Coast Range, natural mineral springs and native soils, atmospheric deposition, consumer products, and more. Natural and artificial wetlands and other productive aquatic ecosystems enhance production of the toxic, bioaccumulative form methylmercury, presenting a dilemma for water managers. The objective of this inter-regional effort is to develop a Mercury Strategic Plan for addressing mercury issues consistently and at a broader scale than individual IRWM regions—a Plan that can be tailored for individual IRWMPs.

The Mercury Strategic Plan will include analyses and decision support tools applicable to each IRWM Region, including the NSV. This project will leverage the Natural Hazards mapping already hosted in the Sacramento River Watershed Program’s Sacramento River Watershed Information Model online watershed GIS and document library. New functionality will allow users throughout the watershed to visualize mercury pollution and research spatially, highlight priority areas, submit proposed projects, and view other proposed mercury control or remediation projects from all IRWM Regions and other efforts. This interregional clearinghouse can be used to prioritize mercury projects basin-wide.

4.18 California Native Americans Tribe Notifications/Engagement

This task description is a repeat of most of the discussion found in the Task 2.6 description on outreach earlier in this application, but it is directly



applicable here as well. Task 4 describes how we will go about ensuring that the IRWMP will be successful, and that links directly back to effective outreach. In the context of outreach, notification and communication with Tribes is very important.

Consistent with the 2009 Update to the California Water Plan, the NSV RWMG will use the term “California Native American Tribe” to signify all indigenous communities of California, including those that are non-federally recognized and federally recognized. In addition to our separate efforts related to Tribal notification and overall stakeholder outreach, we expect to work with DWR’s Tribal coordinator on questions and focused support we may need including emerging changes to Tribal coordination. Coordination, interaction and other responsibilities related to federal, state and local governmental programs is undergoing great change as it relates to water issues. Some of these are set forth in DWR Director Mark Cowin’s May 1, 2010 letter addressed to California Native American Tribe (Tribe) representatives. The Tribal Communication Committee’s Tribal Communication Plan addresses the importance of Tribal knowledge of and engagement in water planning processes, including those at the local level such as IRWMPs. The 2009 Update to the California Water Plan includes specific recommended actions related to participation of Tribes in local water planning, including IRWMPs. Such concerns were raised in the 2009 California Tribal Water Summit, and presumably formed the framework for additional dialogue at the September 9, 2010 California Water Plan Tribal Workshop. The September 9 meeting began a more detailed dialogue among the Tribes and DWR in the context of the next Update to the California Water Plan. That meeting reinforced the importance of the elements of the 2009 Tribal Communication Plan, which did address a more active engagement in IRWMPs. We will take advantage of follow-up discussions among the Tribes and DWR to help guide our approach to Tribal engagement and outreach, including DWR’s proposed April 2011 IRWM conference with planned Tribal involvement. More information is available at www.WaterPlan.water.ca.gov/Tribal2/.

The NSV RWMG recognizes the importance and uniqueness of engaging Tribes that exist within the boundaries of the NSV RWMG. Although formal notification is not legally required until specific projects undergo the CEQA process, the NSV RWMG plans to notify Tribes of the IRWM planning process as suggested by the IRWM Guidelines. The TSC will employ the Office of Planning and Research’s procedures for Tribal consultation for General Plans and Specific Plans as guidance. The TSC will first confirm which Tribes have traditional lands located within the NSV region by working with the Native American Heritage Commission (NAHC). An initial identification of Tribes within the NSV boundary is shown in Figure 6 and is based on information provided by DWR’s Tribal Coordinator.

The TSC will notify Tribes of the IRWMP process and invite them to participate in the stakeholder input meetings. The NSV RWMG will attempt to involve Tribes in more direct participation in the IRWMP process, including an initial meeting with Tribe representatives in three different places throughout the region. Initial meeting locations will be in Colusa, Butte, and Shasta County. A higher level of outreach than past planning efforts is anticipated, both with Tribes and all water interests in the NSV region. Evidence in participation by Tribes is already apparent as a staff engineer from the Colusa Indian Community Council recently began attending the ad hoc Steering Committee meetings to become more engaged in the IRWMP process.

California Native American Tribe Notification is part of DWR’s CEQA review for projects requesting funding under Proposition 84. All applicable projects adopted under the NSV IRWMP will follow the formal notification required by PRC 75102.

4.19 Implementation Strategy

The IRWMP is only as effective as its implementation. Accordingly, the NSV RWMG regards an implementation strategy as an essential part of developing the IRWMP. Similarly, the public involvement and stakeholder process is viewed as a critical element for obtaining

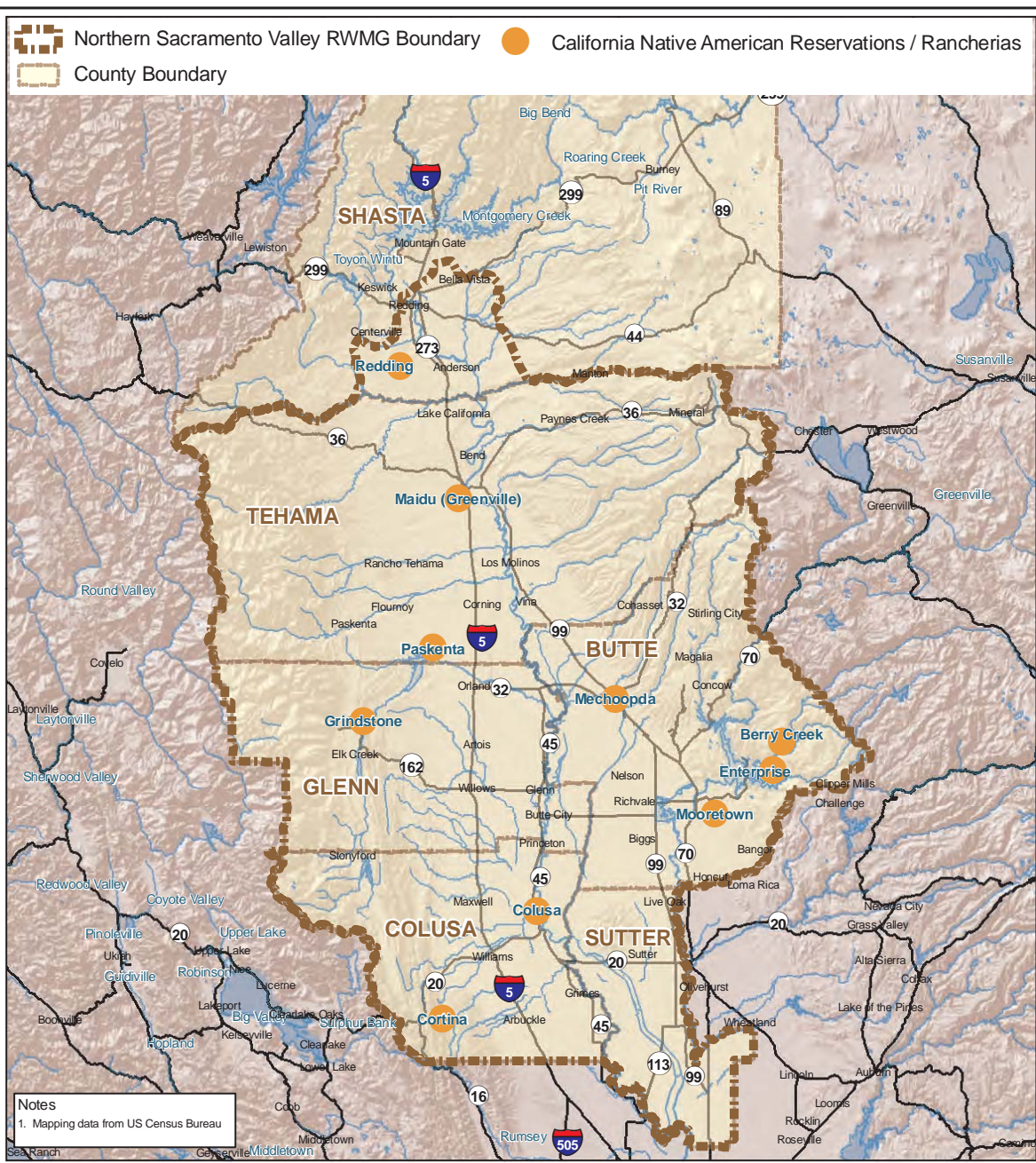


FIGURE 6

**Prop 84 IRWM Planning
Grant Application**

**NORTHERN SACRAMENTO VALLEY RWMG
CALIFORNIA NATIVE AMERICAN TRIBAL AREAS**



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widespread support for implementation of the plan. In the process of formulating the IRWMP, member agencies, individually or in partnership, accept responsibility for implementing particular programs and projects. Nevertheless, the NSV RWMG will develop an implementation strategy as the number, scope, and magnitude of the programs and projects comprising the IRWMP will be greater than any program implemented by the member agencies. Accordingly, the NSV RWMG will formulate an implementation strategy with consideration given to the factors described below.

EVALUATE INSTITUTIONAL ARRANGEMENTS AND PARTNERSHIPS

As noted above, certain programs and projects may be implemented by individual agencies; however, others may require a partnership or joint participation by multiple agencies. Depending upon the type of project and size, both physically and financially, the legal arrangement may be different. Whether a Memorandum of Understanding, a Joint Powers Agreement, or another instrument is most appropriate, will be evaluated on a project-specific basis. The most appropriate arrangement will be developed by the agency or agencies responsible for the project.

EVALUATE FUNDING OPTIONS

The IRWMP will include projects ranging from municipal and agricultural water supply projects, flood control, ecosystem restoration, etc. Similarly, a variety of funding options will need to be considered. The funding options may include bond measures, special assessments, federal and state grant and loan programs, and other funding instruments. Once it has an adopted IRWMP, the NSV RWMG is interested in pursuing a Proposition 84 Integrated Regional Water Management Grant Program implementation grant.

DETERMINE ADVANCED PLANNING AND/OR ENGINEERING

The programs and projects that have been identified as having a high priority will be the subject of advance planning and/or engineering depending upon the type of project. An ecosystem restoration program may require additional

planning and investigation before implementing. On the other hand, a water supply project may require preparing construction plans and specifications for implementation. It is the purpose of this activity to determine the scope of the advanced work and schedule for performing the work to implement each of the projects.

EVALUATE ENVIRONMENTAL COMPLIANCE

CEQA and potentially NEPA compliance will be required for implementing the majority of the projects included in the IRWMP. The IRWMP will evaluate whether a programmatic environmental review process is appropriate for some or all of the projects discussed therein. Regardless of whether a programmatic process is appropriate, however, certain project-specific environmental reviews will likely be required prior to agency approval of the respective projects. The IRWMP will include an initial assessment of the level of environmental reviews that individual projects will have to undergo pursuant to CEQA and possibly NEPA. Importantly, the agency (or agencies) responsible for approving and implementing particular projects will be responsible for all CEQA and NEPA compliance efforts associated with such projects.

EVALUATE REGULATORY COMPLIANCE

Regulatory compliance pertaining to implementing the IRWMP relates to the permits that are required for specific project implementation. These can involve federal and state agencies including the: California Department of Fish and Game, Regional Water Quality Control Board, State Water Resources Board, U.S. Army Corps of Engineers, U. S. Fish and Wildlife Service, etc. The permit requirements for each of the projects will be identified.

Task 5. IRWMP Preparation

5.1 Develop IRWMP Work Plan

The NSV RWMG created an IRWMP Work Plan as an initial step in the development of the NSV RWMG IRWMP. The Work Plan will be used as an outline for the draft and final IRWMP. This task is included in the Work Plan so that the NSV RWMG can receive funding match credit for its



significant contribution in developing this initial step of the NSV IRWMP.

5.2 Prepare and Comment on Administrative Draft IRWMP

An administrative draft IRWMP will be prepared that documents the work accomplished through the public involvement and stakeholder process. The administrative draft will be the first complete draft of the NSV IRWMP and is intended for the TSC's internal review. The administrative draft will be prepared by the consultant. The consultant will circulate this draft to all TSC members for comment. The TSC members may choose to circulate this draft to others in their respective agencies.

The administrative draft will be completed towards the beginning of Phase 3 as the consultant will develop sections of the administrative draft IRWMP throughout Phase 1 and 2. The TSC should provide comments on the administrative draft within 40 working days of receiving the draft.

5.3 Prepare Draft IRWMP and Solicit Public Comment

Based on the comments received on the administrative draft IRWMP, the consultant will prepare a draft of the IRWMP that will be circulated for public review. The draft IRWMP will also be distributed for review and comment by public federal, state, and local agencies and special interest groups. The draft IRWMP will be available on the NSV RWMG website and hard copies as well as electronic copies will be made available. In addition, three public meetings, described in Task 2.7 will be held to receive comments on the final draft IRWMP. The public comment period will last for 60 calendar days.

5.4 Prepare Final IRWMP

Upon receipt of review comments and conducting the public meetings, comments will be reviewed and responses will be prepared and incorporated into the final version of the IRWMP. The incorporation of public comments will represent a part of the formal documentation of the public

involvement and stakeholder process. The final IRWMP will be available on the NSV website and the websites of each of the six counties. Hard copies as well as electronic copies will also be made available at public libraries in the region. The final IRWMP will be the final work product submitted to DWR.

5.5 Adopt Final IRWMP

In accordance with 6066 of the Government Code, the NSV RWMG will publish a notice of intention to adopt the IRWMP after the IRWMP has been completed.

The NSV Board will take action to adopt the IRWMP. Adoption of the plan by the NSV Board will be an acknowledgment of their acceptance of the IRWMP but, more importantly, their commitment to implement particular programs or projects and to also support member agencies in implementing their programs and projects. Water agencies, districts, counties and municipalities in the region will also be asked to adopt the plan to show their acknowledgment and acceptance of the IRWMP and serve as a sign of long-term commitment to the NSV RWMG.

Formal adoption of the NSV IRWMP will be essential documentation for pursuing funding through grant and/or loan programs administered by DWR.

APPENDIX

APPENDIX 1: CCP ASSESSMENT

APPENDIX 2: GOVERNANCE OPTIONS TECHNICAL MEMORANDUM 1

APPENDIX 3: STAKEHOLDER LIST

APPENDIX 4: SEPTEMBER 2010 LETTER FROM DWR REGARDING "CONDITIONAL ACCEPTANCE"

APPENDIX 5: STAKEHOLDER LETTER

